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Sent To: Financial Rec Dept  
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5145

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

from *Bill Wagner*

FOR IMMEDIATE RELEASE

RYAN AERONAUTICAL COMPANY  
TO PAY 10 CENT DIVIDEND

A dividend of 10 cents per share on common stock of the Ryan Aeronautical Company, payable March 10 to stockholders of record February 20, was declared at today's meeting (Friday) of the Board of Directors.

The dividend declaration at this time is in accordance with Ryan's established policy of considering dividends at or near the close of each fiscal year. (The company's fiscal year ended October 31st, and the annual report to stockholders will be issued the latter part of February).



MILITARY AIRCRAFT NAVION PERSONAL AND EXECUTIVE PLANES

EXHAUST SYSTEMS • JET ENGINE COMPONENTS • JET AFTER BURNERS • METAL PRODUCTS

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2/18/48  
Sent to: Financial Red & Yellow  
San Diego Red  
Special 75 list

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

from *Bill Wagner*

For A.M. release  
Friday, Feb. 20.

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\$1,000,000 IN ORDERS IN THREE DAYS SETS  
SALES RECORD AT RYAN AERONAUTICAL CO.

One million dollars in new contracts in the past three days is the unusual sales record just chalked up by the Metal Products Division of the Ryan Aeronautical Company.

Among orders included in the \$1,000,000 in new business are those for exhaust systems for new type Fairchild C-119 Packet cargo planes and for Boeing's new B-50 Superfortress bombers. Jet engine accessories for McDonnell Banshee Navy jet fighters, and additional Ryan exhaust systems for Douglas Aircraft Company and for the U.S. Navy Bureau of Aeronautics are also among the new contracts.

As with other specialized aircraft engine accessories currently being manufactured by Ryan, the exhaust manifolds and jet engine components are fabricated of stainless steel, a field in which the company has long been a leader.

1950

[The following text is extremely faint and illegible due to the quality of the scan. It appears to be a list or a series of entries, possibly a table of contents or a list of publications, but the specific details cannot be discerned.]

Lent 2-20-48  
To: Financial Red & Yellow  
San Diego Red  
Best Aviation Mag. Red

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

MILITARY AIRCRAFT • NAVIION PERSONAL AND EXECUTIVE PLANES

from *Bill Wagner*

For Immediate Release

RYAN AERONAUTICAL CO. REPORTS  
NET LOSS OF \$127,660 FOR YEAR

Financial operations of the Ryan Aeronautical Company for the 1947 fiscal year, ended October 31, resulted in a net loss of \$127,660 on gross revenues of \$8,015,766 after giving effect to a tax carry-back credit of \$423,497, T. Claude Ryan, president, reported today in the Annual Report to Stockholders.

For the prior fiscal year, ended October 31, 1946, Ryan reported a net profit of \$300,320 on gross revenues of \$11,973,352.

The company's 1947 operating loss before tax carry-back credit was \$551,157. Ryan aircraft and aircraft accessories divisions were on a profitable basis, but the stainless steel casket shell manufacturing operations, and the sale of this project during the year, represented a loss of \$660,774, Ryan reported.

"One of the most important developments during the year," Ryan told stockholders, "was the purchase of the four-place personal-business airplane program from North American Aviation, Inc., which had invested over eight million dollars in engineering, development, tooling and inventories. This project, including exclusive manufacturing rights, was purchased by Ryan on a very advantageous basis, and an aggressive production and marketing program is now well under way.

"Ryan has been able to re-enter the personal airplane field without making the extremely large investment that would normally be required to design, develop, tool and put into production a new model beginning from the drawing board.

"Military aircraft manufacturing during the year consisted principally of



• EXHAUST SYSTEMS • JET ENGINE COMPONENTS • JET AFTER BURNERS • METAL PRODUCTS

1875

1875

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pilotless aircraft or guided missiles on a developmental basis. The program in this important field has met with a good degree of success to date, the contract with the United States Air Force having been increased recently for the third time. The missile program, even though on a developmental basis, involves a considerable amount of manufacturing volume. This class of work is very advantageous in that it has interesting future possibilities. It is indicative of the scientific standing maintained by the company's engineering and other technical departments.

"An engineering design contract with the United States Navy for an airplane project of very advanced nature has been under way for some time. A flight test research project on the XF2R-1 airplane manufactured by this company for the United States Navy and incorporating a gas turbine engine plus a jet engine was completed during the year."

The company continued its leading position in the field of aircraft metal products during 1947, with the substantial sales and production volume consisting principally of stainless steel exhaust systems, jet engine parts and accessories and allied aeronautical products. Ryan exhaust systems are standard equipment on a large share of the commercial and military airplanes being produced.

Development work on an "afterburner" thrust augmentation device for jet engines, designed by the Ryan company, continued throughout the year on contract with the United States Navy. Work in this field and its practical application is now also being done directly for other airplane manufacturers. Manufacturing on a moderate scale in the field of rocket power plants is also being carried on by the company in collaboration with organizations specializing in this field.

The first part of the document is a letter from the Secretary of the State to the Governor, dated the 10th day of January, 1862. The letter is addressed to the Governor and is signed by the Secretary of the State. The letter contains the following text:

Sir, I have the honor to acknowledge the receipt of your letter of the 8th inst. in relation to the application of the State of New York for the admission of the State of New York to the Union. I have the honor to inform you that the same has been forwarded to the proper authorities for their consideration.

I am, Sir, very respectfully, your obedient servant,

J. B. Thompson, Secretary of the State.

The second part of the document is a report from the Secretary of the State to the Governor, dated the 10th day of January, 1862. The report is addressed to the Governor and is signed by the Secretary of the State. The report contains the following text:

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I am, Sir, very respectfully, your obedient servant,

J. B. Thompson, Secretary of the State.

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

from *Bill Wagner*

RYAN GETS \$1,325,000 ORDER  
FOR BOEING FUSELAGES

Production in San Diego of fuselage sections for huge commercial airline and military cargo planes to be assembled in Seattle was begun this week by Ryan Aeronautical Company under a new \$1,325,000 contract, T. Claude Ryan, president, announced today.

The order, placed by Boeing Aircraft Company, is for fabrication by Ryan of the 14-foot-diameter rear sections of fuselages for the Stratocruiser passenger airliner and the Air Force's C-97 Stratofreighter. Ryan officials declined to disclose how many units were to be built.

To provide adequate facilities and personnel for the large new Boeing fuselage contract, Ryan has recently expedited delivery schedules for other work currently in production at the company's San Diego plant. Employment at Ryan is now at 1400 compared with a post-war low of slightly over 850 last October.



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Second paragraph of the main body text, continuing the narrative or report.

Third paragraph of the main body text, concluding the visible section.

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Send To: Aug. 4, 1948  
Special 75 list

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

MILITARY AIRCRAFT NAVIION PERSONAL AND EXECUTIVE PLANES

from *Bill Wagner*

JAMES L. KELLEY NAMED  
WORKS MANAGER BY RYAN

Appointment of James L. Kelley, veteran aircraft manufacturing executive, to the newly created position of Works Manager of the Ryan Aeronautical Company, San Diego, was announced today by T. Claude Ryan, president.

Prior to his new connection with Ryan, Kelley was for nearly twenty years one of the key production officials of Consolidated Vultee Aircraft Corp. He was San Diego division manager for Convair during its period of major expansion for the vast war production program. More recently Kelley had served on Convair's management staff as a consultant.

In his new position, Kelley will apply his years of production knowledge to the rapidly expanding aircraft and metal products manufacturing program at Ryan. As the company's manufacturing head, he will work directly with G. C. Woodard, vice president under whom the production departments operate. Under Kelley's direction will be the manufacturing, production engineering, standards and estimating, production control and plant engineering departments.

When Consolidated moved to San Diego from Buffalo in 1935, Kelley was named factory manager and held that position until he became division head in 1942. He was a civilian manufacturing representative for the Air Corps from 1917 until he joined the Consolidated staff at Buffalo in 1929.



EXHAUST SYSTEMS • JET ENGINE COMPONENTS • JET AFTER BURNERS • METAL PRODUCTS



11/27/48  
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RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

MILITARY AIRCRAFT NAVY PERSONAL AND EXECUTIVE PLANS

from *Bill Wagner*

FOR RELEASE  
MONDAY, DECEMBER 1st

RYAN AWARDED MILLION DOLLAR INCREASE  
IN AIR FORCE GUIDED MISSILE PROGRAM

Emergence of the Ryan Aeronautical Company as a leader in the new field of guided missile research was indicated with today's announcement by T. Claude Ryan, president, that the U. S. Air Force has just increased by \$1,070,000 its already substantial commitments with the company for development and manufacture of a new type controlled weapon it has designed.

Since starting its research program on guided missiles and pilotless aircraft more than a year ago, Ryan has concentrated on development work in a specialized field in which it has now become a recognized authority. As a result the Air Force has three times increased its contract, each time authorizing additional and more extensive work.

Though details of the guided missile are not releaseable as to its design or specific military mission, Ryan engineers have described it as one of the most compact weapons of its type ever designed and with a "built-in brain capable of doing its own thinking" once it has been launched.

While the missiles are being developed at Ryan's research laboratory and fabricated in its San Diego plant, actual flight testing is being done at the Alamogordo Air Base in New Mexico, center of Air Force guided missile testing.

EXHAUST SYSTEMS • JET ENGINE COMPONENTS • JET AFTER BURNERS • METAL PRODUCTS





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from *Bill Wagner*

REVERSING PROPELLER ON RYAN "DARK SHARK"  
FIGHTER BREAKS AIR SPEED & SHORTENS LANDING

A new system of "braking" the speed of a plane in the air by flattening the pitch of the propeller during the final landing approach, so that the increased drag gives a steeper gliding angle and markedly reduces the landing roll, has been successfully demonstrated on the Ryan Aeronautical Company's XF2R-1 "Dark Shark" Navy fighter.

A strictly experimental plane, the Dark Shark recently completed its test program for the Navy and some of the results are now being announced after evaluation by company engineers and the Bureau of Aeronautics.

This unique air braking system, made possible by the huge four-bladed Hamilton Standard square-tipped, Super-Hydromatic propeller, can be used during landings to supplement the drag created by the plane's wing flaps. So effective was the drag-creating feature of the reversing propeller that Ryan test pilot Al Conover expressed the belief that normal runway landings could be made in a distance no greater than the length of large aircraft carriers of the Midway class.

Jet-powered aircraft due to their clean aerodynamic design have an extremely high landing speed and require long runways for the landing roll. The XF2R-1, however, even though using only jet-turbine engines, could make very short landings, and had greatly improved handling qualities on the ground, because the turbo-prop engine was equipped with the Super-Hydromatic propeller. Previously this type of propeller had been used only on multi-engined transport planes.

The constant speed, full feathering and reversing propeller has an automatic adjustment coordinated with the throttle to change the blade angle from normal

Faint, illegible text, possibly bleed-through from the reverse side of the page. The text is too light to transcribe accurately.

operating pitch, when the power is reduced for landing, to the flatter pitch position which converts it into an effective brake in the air to reduce speed.

The propeller arrangement also incorporated a tie-in circuit to the landing gear so the prop could immediately be changed to an even flatter angle when contact with the runway is made, thus reducing the landing roll to an absolute minimum. Due to the great inertia of the spinning turbine wheel, which turns for a long time at high r.p.m. even after the engine is shut down, the propeller, without the flat pitch feature, would pull the plane far down the runway even against the holding power of the landing gear wheel brakes.

Diameter of the propeller, which has a greatly increased blade area compared with previous Fireball designs, is 11 feet as contrasted to the  $9\frac{1}{2}$  feet of the three-bladed propeller of the FR-1 model.

The Super-Hydromatic propeller used on the Ryan experimental Navy fighter has an extremely fast rate of pitch change. Full feathering of the propeller, or reversing it to a zero blade angle, is accomplished in a matter of seconds. The zero blade angle creates the reverse thrust which permits deceleration of the plane in landing.

The XF2R-1, like previous Fireball models, was capable of flying on its rear jet engine alone, and in such flights the propeller was "feathered" by changing the blade angles so that their chord lies in the direction of flight. In this position, they acted as brakes to stop rotation of the propeller and turbine wheel, and at the same time offer the least possible drag on the plane.

One of the additional advantages the "Dark Shark" has over the FR-1 model, the propeller of which is turned by a reciprocating engine, was the faster acceleration and deceleration possible. This was due to the fact that power changes in the newer model were made entirely by adjustment of the propeller control.

The first part of the document is a letterhead containing the name of the organization and its address. Below this, there is a salutation and the beginning of the letter's main body. The text is extremely faint and mostly illegible.

The middle section of the page appears to contain several paragraphs of text, possibly detailing specific information or instructions. The layout is dense with small, closely spaced lines of text.

The bottom portion of the document features what looks like a signature block or a set of concluding remarks, followed by a signature line and possibly a name. The text is too faded to read accurately.

*Ryan*

**PRESS RELEASE**

FROM BILL WAGNER

Mailing out: January 11, 1949  
San Diego Red  
Aviation Mans Rd  
Financial Red

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

RYAN RECEIVES \$1,500,000 INCREASE IN ORDER  
FROM BOEING FOR STRATOFREIGHTER ASSEMBLIES

A \$1,500,000 increase in Ryan Aeronautical Company's current order from Boeing Aircraft Company for C-97 Stratofreighter assemblies has just been received, T. Claude Ryan, president, announced today. The new order, which practically doubles Ryan's original contract, stems from an Air Force decision to increase by 23 the number of Boeing Stratofreighters which can be used on the Berlin Air Lift.

Authority to proceed with the increased number of C-97's was signed late last week at Seattle by Major General K. B. Wolfe, Director of Procurement and Industrial Planning of the Air Materiel Command. Announcement of authorization by President Truman of funds for the purchase was announced earlier by the Air Force in Washington.

Ryan will build the 14-foot-diameter rear fuselage sections and all floor beams for the additional Stratofreighters under an accelerated schedule which calls for completion of the entire project in approximately the same time as planned for the original order. To ensure rapid progress on the new Boeing contract Ryan has expedited delivery programs for other work currently in production at the company's 43-acre San Diego plant.

Employment at Ryan has reached 2,500 compared with a post-war low total of about 850 in October, 1947. Additional personnel will be added gradually as the pace of production increases, most of the increment slated for the final assembly department. The number of large special fuselage jigs required for the Boeing sections will be doubled and other equipment added as needed.

The "authority to proceed" order delivered to Boeing brings to 119 the inclusive number of double-deck Stratocruiser-Stratofreighter type transports already built or on order. Ten Stratofreighters already are in service with the U.S. Air Force, and deliveries are about to begin on 55 Stratocruisers to six foreign and domestic airlines. Ryan is building fuselage components for both Stratofreighters and Stratocruisers, and also makes exhaust systems for these two transports as well as for the Boeing B-50 Superfortress bomber.

Need for the big, fast-cruising air transports was indicated in a recent statement attributed by press services to Air Secretary Stuart Symington that airplanes having a capacity more than double that of the C-54's now in use are being considered for the Berlin Air Lift. The planes were identified as C-97's. Sixty Stratofreighters now built or on order would, it was claimed by W. E. Beall, Boeing Vice-president at Seattle, be equivalent to 210 C-54's if assigned to the Air Lift.

**RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA**

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from *Bill Wagner*

For P.M. Release  
Friday, January 14

RYAN GETS MULTI-MILLION DOLLAR ORDER  
FOR GENERAL ELECTRIC JET ENGINE PARTS

A multi-million dollar volume production order for exhaust cones, burner assemblies, combustion chambers and other specialized jet engine parts has just been received by the Metal Products Division of the Ryan Aeronautical Company.

The Ryan-built jet engine components have been ordered by General Electric Company for their J-47 (TG-190) model, which is going into mass production because of the important role this power plant will play in the expanding Air Force program.

Preliminary work on the huge new order was started at Ryan several months ago, and a major re-arrangement of plant facilities is nearing completion in order to provide necessary manufacturing and assembly areas for the J-47 jet engine components. A sizeable investment has been made in new equipment for the General Electric order, including a new hydro-press, spot welders, vertical turret lathes and other machine tools which are now being installed at the Ryan plant.

As the Ryan Metal Products Division swings into line production, the delivery schedule will be stepped up to match the expanding requirement for the J-47 jet engines. The present program calls for a several-years uninterrupted production schedule.

Negotiations with General Electric and the Air Force for Ryan to undertake much of the stainless steel parts manufacture for the J-47 were begun many months ago. Since that time the total production scheduled has been increased several times.







Ryan officials declined to name the exact dollar value of the contract or reveal detailed production schedules, but have stated that the program will be a major factor in the work of their Metal Products Division for several years. Several hundred additional employees have already been hired for the program, and more may be required later in 1950.

The J-47 jet engine is used on such advanced types as the North American F-86 fighter. The engine was developed and has been in production on a "pilot" basis at General Electric's Lynn, Massachusetts, plant, but will be assembled under the expanded program at the Lockland, Ohio, plant.

As an advance step in getting started on the new program, Ryan some months ago placed advance orders for materials, especially critical items which are now in short supply. Under present schedules it is anticipated that first deliveries from Ryan will be made early in 1949.



RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

from *Bill Wagner*

RYAN AERONAUTICAL REPORTS

\$356,603 EARNINGS FOR 1948

Earnings of the Ryan Aeronautical Company for the 1948 fiscal year, ended October 31, were \$356,603 after provision for federal taxes on income, T. Claude Ryan, president, reported today in his Annual Report to Stockholders.

The 1948 profit was equal to approximately 90 cents per share, and compares with a net loss of \$127,659 the prior year, which was approximately 31 cents loss per share.

Sales volume for the 12 months ended October 31, 1948, was \$7,948,411 and resulted in a gross profit of \$588,603 before allowance of \$232,000 for federal income taxes. For the prior fiscal year, sales totaled \$8,015,766.

Reporting on the past year's activities in the company's Airplane Division, Ryan disclosed that some 500 commercial Ryan Navion planes had been sold, and that work was in progress at the year end on an order for 163 military Navions, plus the equivalent of 60 additional planes in spare parts.

"The company's guided missile program for the U. S. Air Force has been on an increased scale of activity and substantial progress was made during the year," Ryan said, "justifying considerable confidence in its future prospects.

"A design developed by the company during the year for a high-speed, jet-propelled, pilotless target plane for the U. S. Air Force won a competition in a field of 16 entries by the country's principal aircraft manufacturers. The contract for engineering, development and manufacture of an initial quantity was in its early phase of work during the latter part of the year. It is believed to have very good prospects for the future.



MILITARY AIRCRAFT • NAVION PERSONAL AND EXECUTIVE PLANES



"The engineering and study contract with the U. S. Navy for work on an advanced-type airplane design, which was in effect the prior year, was continued and increased in scope."

Ryan also reported excellent progress on the company's large subcontracts with Boeing Airplane Company for fuselage sections for Stratocruiser passenger transports and Stratofreighter cargo planes.

In the Metal Products Division, business has been increasing in scale all along the line, with important new orders booked for jet engine components, for conventional exhaust systems and for rocket power plant parts. Of major importance was the contract recently received from General Electric Company for volume production of stainless steel assemblies for the J-47, most powerful and modern jet engine now being built for the military services.

Net worth of the company increased from \$3,874,820 on October 31, 1947 to \$4,152,428 at the end of the 1948 fiscal year, and book value per share was up from \$9.64 to \$10.50.

The increased volume of manufacturing operations during the latter part of the year was reflected in inventories of raw material and work-in-process. At the start of the fiscal year they were \$1,819,352, increasing to \$4,182,594 at October 31st, and stood at slightly in excess of \$5,100,000 on December 31st.

For the three years since the end of the war, total net profit after taxes was reported by Ryan as \$529,263, while dividends since the war end, including the one to be paid March 10, have amounted to \$329,395. During the same period, equipment assets have been increased \$759,072, which is \$229,808 more than the net profit for the three years.



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from *Bill Wagner*

Mailing Out: 3-8-49  
San Diego Red  
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Avia. Mags. 1

NEW METAL PRODUCTS SALES

BOOST RYAN ORDER BACKLOG

New order for stainless steel metal products totalling more than \$750,000 were added to Ryan Aeronautical Company's backlog recently, Sam Breder, Sales Manager, disclosed upon return from a business trip to New York, Washington and other eastern cities.

Prominent in the new business columns was an award from Continental Motors Company for manifolds for their automotive engines. Continental's 810 h.p. 12-cylinder model engine was developed for the Army's new General Patton tanks, which develop up to 50% more speed than the General Sherman tanks of World War II.

Lockheed Aircraft Corporation put in an order for exhaust manifolds for the Navy's record-setting long-range patrol plane, the P2V-3 Neptune, the second large order from this company this year. From the Glenn L. Martin Company came an order for exhaust systems for the new carrier-borne torpedo-bomber plane, the Martin Mauler AM-1, already dubbed "Able Mable" by Navy aviation personnel. The Mauler carries a greater load of explosives aloft than any other single-engined carrier plane, with improved speed and range to match its terrific fire-power.







*Ryan***PRESS RELEASE**

FROM BILL WAGNER

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

LARGEST JET ENGINE TAIL-

PIPE DISCLOSED BY RYAN

Believed to be the largest jet engine tailpipe ever built is the huge stainless steel exhaust system Ryan Aeronautical Company built for the Wright T-35 Typhoon turbo-prop engine. Pictures of the tailpipe assembly have just been released for publication by the National Military Establishment.

Several years ago Wright Aeronautical Corp. began work on an experimental gas turbine-propeller engine, reported to be one of the largest in the world, with a thrust said to be in excess of 5000 pounds. They called on Ryan engineers and workmen to turn out the largest tailpipe assembly ever constructed to carry off the fiery exhaust gases and provide jet thrust for the engine. The T-35 Typhoon was built as a research and development project, and the experimental installation was mounted in the nose of a Boeing B-17 for flight testing.

One of the design problems Ryan engineers had to conquer was the forward, aft, and side motion of the tailpipe as well as the up and down motion while in flight. One portion of the tailpipe was attached to the airplane structure and one portion to the engine. Ted Hacker, Ryan Manifold Design Engineer, solved this thorny problem of transverse motion by devising transversal seal rings which fitted between the engine and the plane's structure.

Because of careful planning this largest of all jet exhaust systems required no reworking or design changes after operational tests, but there were tremendous problems involved in the construction of the assembly.

Of the fourteen large, stainless steel sections which made up the final installation, some were as much as six feet in diameter. Biggest headache was holding these huge sheet metal parts to fine tolerances during welding, heat-treating and assembling.



*Ryan*

## PRESS RELEASE

FROM BILL WAGNER

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

### MILITARY COMPLETES INSPECTION OF RYAN XQ-2 TARGET PLANE

Forty officers and technicians of the Air Force, Navy and Army Field Forces, from Wright Field and other aviation development centers have just completed a three-day preliminary inspection of the Ryan XQ-2 jet-propelled pilotless target plane at the Ryan Aeronautical Company plant.

The group was headed by Col. H. J. Sands, Jr., Chief of the Guided Missiles Section of the Air Materiel Command.

Ryan has had the XQ-2 robot plane under development for the past year and a half, having been awarded the contract after a major competition. The project is a joint effort of the Air Force and Navy.

The Ryan XQ-2 is a high-speed radio-controlled pilotless drone, less than half the size of a standard fighter plane. It will be used as a target plane for interception problems as well as for anti-aircraft and combat plane gunnery training.

Technical details of the XQ-2, quantity of units being produced by Ryan and amount of the contracts involved have not yet been announced.

*Hyper*

THE NATIONAL BUREAU OF INVESTIGATION

UNITED STATES DEPARTMENT OF JUSTICE

MEMORANDUM FOR THE DIRECTOR

Reference is made to the report of Special Agent in Charge [Name] dated [Date] at [Location], and to the report of Special Agent in Charge [Name] dated [Date] at [Location]. The above reports contain information regarding the activities of [Name] and [Name] in the [City] area.

The above information was obtained from the files of the [City] Office and is being furnished to you for your information. It is noted that the activities of [Name] and [Name] are of a nature which may be of interest to the Bureau.

Very truly yours,  
Special Agent in Charge



# PRESS RELEASE

FROM BILL WAGNER

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

For AM Release  
Tuesday, August 30

Mailed 8-25 - 8-29

## RYAN AWARDED MILLION DOLLAR INCREASE IN JET TARGET PLANES

San Diego Red  
Avia. Mags 1-2-3  
Newspapers - Red  
Technical - Red  
Financial - Red  
Foreign - Red  
Wires - Red & Yellow  
Army & Navy Red  
Misc. Red  
Free Lance Red

A new million dollar Air Force contract has been awarded Ryan Aeronautical Company to continue the development and fabrication of an additional quantity of Ryan XQ-2 remotely controlled jet-powered aerial target planes.

The original contract for the Ryan robot planes, signed more than a year ago, was for approximately two million dollars.

The design and fabrication of the first experimental quantity has progressed satisfactorily, and delivery schedules have been established to permit flight testing and evaluation by the Air Force. The Air Force is charged with the technical responsibility for the development of the XQ-2.

The high speed, radio-controlled target craft will be used for combat plane interception problems and for antiaircraft and aerial gunnery training by the Air Force, Navy and Army.

The first production units are now being assembled at Ryan's San Diego plant and work on a second group of the pilotless aircraft is being started immediately, company officials said. The



first preliminary evaluation of the XQ-2 was completed just two weeks ago by a joint Air Force-Navy-Army technical board headed by Col. H. J. Sands, Jr., Chief of the guided missiles section of the Air Materiel Command.

No information is available as to the number of robot planes scheduled to be built, nor have other than very general technical details of the XQ-2 been released.

Since the XQ-2 is to be used in target work with latest combat planes, it is reported to be capable of performance approximating that of modern jet fighter aircraft. Powered by a jet engine, the robot aerial target is designed for high speeds and remote control operation. It is less than one-half the size of a standard jet fighter plane.

The original development contract for the XQ-2 was awarded the Ryan Aeronautical Company as a result of a design competition with other aircraft manufacturers.





Attached mailing sent to the following groups  
from 10-28-49 through 11-18-49

San Diego Red  
Aviation Mags 1, 2, & 3  
Tech. Red & Yellow  
Newspaper Red  
Foreign Red  
Foreign Yellow  
Wire Services Red & Yellow  
Army & Navy  
Miscellaneous  
Free Lance Red  
Magazines General Red  
Photo Syndicates Red  
" " Yellow  
Picture Mags Red  
Feature Syndicates Yellow  
Financial Red & Yellow

A-58



## PRESS RELEASE

FROM BILL WAGNER

For Release  
Monday, November 14,

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

1949

### AIR FORCE REVEALS RYAN "FIREBIRD"

#### AS FIRST AIR-TO-AIR GUIDED MISSILE

The rocket-propelled "Firebird" guided missile, virtually a fragmentation shell with human intelligence, which is extremely small, fast and difficult to track even on radar scopes, has been developed by Ryan Aeronautical Company engineers. The Air Force's first air-to-air missile, the "Firebird", is designed to be as effective for night or inclement weather interception as in clear skies since visual sighting is not required.

Designated the XAAM-A-1 (experimental, air-to-air missile, Air Force, first model), the Ryan "Firebird" is extremely compact for the complete radar navigational system and large explosive charge it carries. Launched from a "mother" jet fighter plane, it is capable of heading off and destroying its objective in a matter of seconds. It has all the speed first generated by the parent fighter, plus the added power of its own booster rocket and finally its flight rockets.

Because it is a pilotless projectile, it is capable of maneuvers beyond human endurance, making it extremely effective against piloted aircraft. Little more than half a foot in diameter, it is about 10 feet in length and 7-1/2 feet long after dropping its booster rocket.

The "intelligence" of the Ryan "Firebird" is its complicated radar navigational and electronic system, making this missile one of the most compact flying weapons ever devised.

The missile's mother plane is the first to detect the target, and directs the launching of the missile. Thereafter, the "Firebird" is designed to "home" on the enemy target. At night or in inclement weather the launch plane must



have a search/tracking radar capable of spotting the enemy aircraft. The host fighter plane can carry one or more missiles on external launching racks which fit standard bomb installations. The "Firebird" missiles can be fired in single or multiple launchings.

In actual flight tests, four of the "Firebird" air-to-air missiles were slung beneath the wings of a North American F-82 "Twin Mustang" fighter -- two beneath each wing. During other tests, a Douglas B-26 twin-engine attack bomber served as the launch plane.

The wings and tail of the missile are in the form of a double cruciform, the wings having an X attitude and the fins a + attitude when in level flight. The four vane-like wings are located about midway on the rocket portion of the projectile. Two feet behind the wings are the four tail vanes. Both wings and tail surfaces serve to control the flight of the missile.

Of about 3-foot span, the wings have an aerodynamically smooth surface not equalled by the usual sheet metal construction. Except for the plastic radome and wings, the basic missile structure is conventional aluminum-alloy sheet.

After the missile is launched from the parent plane, a booster rocket takes over. Then, when the "Firebird" reaches maximum speed, the spent booster is jettisoned by an explosive charge. Thereafter, during the latter phase of interception, power is supplied by flight rockets. The warhead is designed to explode when it is close enough to an enemy aircraft to insure destruction. Should the missile miss its target, the warhead is automatically detonated in the air.

Development of the missile has been under way for more than two years by the Ryan Aeronautical Company. The "birds" have been manufactured by the company's San Diego plant, and under joint Air Force-Ryan technical supervision actual firings have been made at Holloman Air Force Base, Alamogordo, New Mexico.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper bookkeeping is essential for the success of any business and for the protection of the interests of all stakeholders involved.

It further states that the records should be kept in a clear and concise manner, and that they should be accessible to all authorized personnel. The document also mentions that the records should be kept for a period of at least seven years, as required by law.

The second part of the document discusses the importance of maintaining accurate records of all assets and liabilities. It emphasizes that proper asset management is essential for the success of any business and for the protection of the interests of all stakeholders involved.

It further states that the records should be kept in a clear and concise manner, and that they should be accessible to all authorized personnel. The document also mentions that the records should be kept for a period of at least seven years, as required by law.

The third part of the document discusses the importance of maintaining accurate records of all income and expenses. It emphasizes that proper financial reporting is essential for the success of any business and for the protection of the interests of all stakeholders involved.

It further states that the records should be kept in a clear and concise manner, and that they should be accessible to all authorized personnel. The document also mentions that the records should be kept for a period of at least seven years, as required by law.

The fourth part of the document discusses the importance of maintaining accurate records of all tax-related information. It emphasizes that proper tax management is essential for the success of any business and for the protection of the interests of all stakeholders involved.

In the interests of economy, the missiles were launched from aircraft in flight without the guiding mechanism installed, and the data resulting from the flight tests served to determine the effectiveness of the propulsion system and the general aerodynamic configuration. The guiding mechanism has been subjected to extensive ground testing and found satisfactory.

The project is still in the experimental phase. Although it is not planned to put the "Firebird" into production, the research and development work has provided Air Force and industry technicians with valuable engineering data which is being used in designing improved air-to-air missiles. Cost of the development project was approximately \$2,000,000.

The "Firebird" name derives from the "Fire" series of combat aircraft designed and built by Ryan, the first of which was the "Fireball" jet-plus-propeller fighter.

At the present time Ryan Aeronautical Company is also working on the XQ-2, a jet-propelled, high-speed, radio-controlled pilotless aircraft less than half the size of a combat fighter, to be used as an aerial target for interception and gunnery training.

Faint, illegible text, possibly bleed-through from the reverse side of the page. The text is arranged in several paragraphs and appears to be a formal document or letter. The right edge of the page shows three binder holes.





Out: 12-23-49  
Stockholders  
Selected San Diego Red  
Financial Red  
Aviation Mans 1

# RYAN AERONAUTICAL COMPANY

LINDBERGH FIELD, SAN DIEGO 12, CALIFORNIA, U.S.A.

CABLE: RYANCO, SAN DIEGO

## NEWS LETTER

TO THE SHAREHOLDERS OF  
THE RYAN AERONAUTICAL CO.:

The year 1949 was the 17th profitable year for The Ryan Aeronautical Co. since its incorporation in 1931. Near the end of February you will receive the regular Annual Report to Stockholders containing complete financial information. It was felt that you would like to have this preliminary report at this time, outlining some of the main points of 1949 operations.

SALES for the year were \$15,268,087.00, the largest volume of any post-war year.

NET PROFIT after taxes was \$346,674.00 – roughly 90 cents per outstanding share. This is approximately the same as for 1948.

BOOK VALUE per share at the year end was \$11.20, compared to \$10.53 per share as of the start of the year and \$9.64 at the close of the 1947 fiscal year.

WORKING CAPITAL. At the year end the ratio of current assets to current liabilities was slightly under 2 to 1. The slight decline in this ratio during the year was due to the larger volume of sales which necessitated larger bank loans and larger inventories. The bank loans which stood at \$3,000,000.00 at October 31, will have been reduced to \$2,000,000.00 by December 31, increasing the current ratio to approximately 2¼ to 1. Net working capital as of the year end was \$3,186,945.00 or over \$8.00 per outstanding share.

Respectfully submitted,

*T. Claude Ryan*  
T. Claude Ryan, President

December 23, 1949



ARMY REGULATIONS

1917

Section 100

Article 100. A soldier who is guilty of any offense... shall be punished as provided in this article.

Section 101. A soldier who is guilty of any offense... shall be punished as provided in this section.

Section 102. A soldier who is guilty of any offense... shall be punished as provided in this section.

Section 103. A soldier who is guilty of any offense... shall be punished as provided in this section.

Section 104

*[Handwritten signature]*

Section 105

Mailing Out: 2-10-50

3 S.D. Newspapers )  
Aviation Mags 1 ) PIX  
Tech. Red)

Aviation Mags 2  
Financial Red  
Foreign Red  
Wire Services  
A.P.) S.D.  
U.P.)

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

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from *Bill Wagner*

RYAN BUILDING COMPONENTS FOR  
AEROBEE HIGH ALTITUDE ROCKET

Latest name to be added to the list of those associated with manufacture of the 3000 m.p.h. Aerobee high altitude sounding rockets is that of Ryan Aeronautical Company, San Diego. Recognized as leading fabricators of stainless steel components for high temperature aircraft uses, Ryan for some time has been building most of the assemblies for the pencil-thin rocket, except the propulsion unit and fuel tank. The Aerobee is the most widely used American-built sounding rocket.

The latest research project with Aerobee rockets got under way in mid-September at Holloman Air Force Base at Alamogordo, New Mexico. There the Air Force will use the latest Ryan-built Aerobees for a two-year high-altitude study of cosmic rays, meteorology, radio characteristics and other unknown facts about the thin, upper atmosphere. Scientific assistance and instruments are being supplied by some 15 colleges and research institutions which will help Air Force technicians in evaluating the information.

Experience with the 60 rockets to be fired at Alamogordo is expected to not only furnish new information about conditions 75 miles above the earth, but will also supply technical data on which further guided missile development will be based. The new project is an expansion of similar tests the Army has been conducting with German V-2 rockets at the White Sands, New Mexico, proving ground. The Aerobee rockets are smaller, simpler and cheaper missiles than the huge, complicated V-2's.



EXHAUST SYSTEMS • JET ENGINE COMPONENTS • JET AFTER BURNERS • METAL PRODUCTS



Since the launching of the first Aerobee rocket in March, 1948, at White Sands, the missiles have twice hit the headlines. First was the fall of that year when automatic cameras mounted in one of the rockets took 200 pictures at  $1\frac{1}{2}$  second intervals from up to 70 miles high, showing curvature of the earth and land areas of the western United States 1400 miles in length from upper Wyoming on the north to deep into Mexico on the south.

Then, in March of this year, two Aerobee rockets were fired from the deck of the U.S.S. Norton Sound, a Navy seaplane tender fitted especially for launching guided missiles at sea. Principal data gained at the time of these firings, to an altitude of 65 miles at a location 700 miles in the Pacific off the west coast of South America, concerned cosmic ray intensity.

The Aerobee was developed originally for the Navy Bureau of Ordnance by the Aerojet Engineering Corp. of Azusa, California, a subsidiary of The General Tire & Rubber Co., Akron, Ohio, from which Ryan Aeronautical Company has received its contracts for the missile's needle-like nose section, the tail cone, booster and main rocket body fins, shrouds, fairings and other components.

A portion of the components of the first 20 Aerobees was sub-contracted by Aerojet to Douglas Aircraft Company, Santa Monica. This project has been under the technical supervision of the Applied Physics Laboratory of Johns Hopkins University. The design was influenced to some extent by previous development sponsored by the Ordnance Department of the Army.

The Aerobee is a liquid-fueled rocket, 20 feet long and pencil thin. It has two-stage propulsion; that is a solid fuel booster rocket first brings its velocity up to 670 m.p.h. and then drops off. After that the sustaining liquid-fueled rocket motor speeds it up to 3000 miles an hour and altitudes of 75 miles. It



is designed to carry a 150- to 200-pound payload of scientific instruments which are blown from the nose of missile at the top of the trajectory and lowered by ribbon parachute. The rocket also carries telemetering equipment which automatically transmits data by radio to ground stations.

Simple in design and comparatively inexpensive to build, the Aerobee is fired from a launching tower by a small technical crew using a minimum of costly installation and firing facilities.





*Ryan*

PRESS RELEASE

FROM BILL WAGNER

Mailing Out: 2-21-50  
San Diego Red  
Aviation Mags 1 & 2  
Financial Red

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

NEW FIELD ENTERED BY RYAN AERO IN  
STARTING \$750,000 WING TANK ORDER

A new field of airframe components manufacture has been entered by Ryan Aeronautical Company with the closing of contracts for the design and volume production of external wing tanks for military planes.

Preliminary work on the three-quarters of a million dollar contract has been under way for some time in the Engineering Department, Research Laboratory and Experimental Department at Ryan. Due to security restrictions Ryan is not yet at liberty to disclose details of the new order, nor the military airplane for which the tanks are to be manufactured.

Requirements for the external wing tanks were outlined by the prime manufacturer, but Ryan will do the actual design and engineering. Possibly the largest wing tanks ever designed, some idea of their size may be gained by the fact they will be larger than the fuselage of Ryan's popular four-place Navion personal-business plane.

Production on the tanks, on the basis of present schedules, will continue well into 1951.

Handwritten notes or signature in the top right corner.

Main body of the document containing several paragraphs of text, which is extremely faint and illegible.

# Ryan

## PRESS RELEASE

For Release  
Tuesday,  
February 28

FROM BILL WAGNER

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

RYAN AERONAUTICAL COMPANY

1949 EARNINGS \$358,052

San Diego Red (5)  
Aviation Mags 1  
Financial Red  
PAC Public Relations  
AIA Personnel (3-2-50)  
(Littrell, Geuting,  
Webb, Goss)

Ryan Aeronautical Company earned \$358,052 for the 1949 fiscal year, ended October 31 last, T. Claude Ryan, president, disclosed today in the company's annual report to stockholders. This was equivalent to 91 cents per share on the net outstanding shares, and compares with \$356,603, or 90 cents per share, for the 1948 fiscal year.

Book value at the close of the fiscal year was \$4,415,608, or \$11.21 per net outstanding share, compared with \$4,152,428 or \$10.54 per share for 1948 and \$3,874,822 or \$9.65 per share for 1947.

During the year, \$406,054 additional was invested in new equipment. The \$210,160 by which this exceeded depreciation charges for 1949 came from earnings.

Net working capital stood at \$3,404,397 or approximately \$8.64 per net outstanding share, as of the end of the fiscal year, compared with \$3,229,773 or \$8.20 as of the year before.

Of 1949's gross revenue of \$15,014,564, the Airplane Division accounted for \$8,736,821 and the Metal Products Division for \$6,277,743. Operations of both divisions were profitable, Ryan reported. Gross revenue for 1948 was \$7,948,411.

Work of the Airplane Division falls into three classes (1) Ryan Navion personal-business planes, (2) manufacture of major airframe components, and (3) military aircraft development contracts.

1870

1870

Main body of the document containing several paragraphs of text, which is extremely faint and illegible.

Principal activity of the Metal Products Division is the design and manufacture of products fabricated from heat- and corrosion-resistant stainless steels. This work falls into two basic groups: (1) Exhaust systems and similar accessories for conventional piston-type engines; and (2) Components for turbo-jet and gas turbine engines. Ryan's jet engine business represented a larger proportion of the total volume than in the prior year and this trend is expected to continue, Ryan said, as increasing emphasis is given this type of power plant.

In the field of airframe components manufacture, Ryan has just completed a contract for 50 huge fuselage sections for Boeing commercial and military transport planes. Negotiations for an additional quantity have been completed, calling for deliveries during the latter half of 1950.

Three new Ryan Navion planes will make up the company's 1950 line of personal-business aircraft, compared to the one model previously offered, Ryan stated. These are the Utility 205 at \$9485, the DeLuxe 205 at \$10,985 and the Super 260 at \$13,985. The Super 260 represents the greatest improvement in performance since Ryan began Navion production in 1947. It's increased cruising speed of 170 m.p.h., exceptionally high rate of climb, and other outstanding performance characteristics are reported to be superior to any other airplane in its class.

In the field of military aircraft, the company is proceeding with development and manufacture of the Ryan XQ-2 jet propelled pilotless target plane. During 1949 the program was increased by over \$1,000,000. It "holds excellent future possibilities," Ryan reported to stockholders.

An engineering design and research project for the Navy Bureau of Aeronautics has been further extended, but security regulations do not permit identifying it.

THE UNIVERSITY OF CHICAGO  
DEPARTMENT OF CHEMISTRY  
5800 S. UNIVERSITY AVENUE  
CHICAGO, ILLINOIS 60637

RECEIVED  
JAN 15 1964  
FROM  
DR. J. H. GOLDSTEIN  
100 EAST WASHINGTON STREET  
ANN ARBOR, MICHIGAN 48106

RE: *Proton Magnetic Resonance of  
Polymer Solutions*

Dear Dr. Goldstein:  
I have received your letter of  
January 14, 1964, and am  
pleased to hear that you  
are interested in the  
work of the Chicago group.

I am sorry that I cannot  
reply to you more fully  
at this time, but I will  
be glad to discuss the  
work of the Chicago group  
with you in more detail  
at a later date.

Very truly yours,  
R. M. Waymouth

In addition to work on accessories for both conventional piston-type and jet engines, the company's specialized knowledge has led it into newer items, including rocket engine parts and rocket bodies, which are expected to add further to production activity in this growing field.

Total dividends paid to stockholders in the past 14 years is \$958,386, Ryan said, which is more than the capital provided by shareholders through the purchase of capital stock.

Faint, illegible text at the top of the page, possibly a header or introductory paragraph.





## PRESS RELEASE

FROM BILL WAGNER

Mailing Out: 3-1-50  
San Diego Red  
Aviation Mags 1 & 2  
Financial Red

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

### HALF MILLION DOLLARS IN METAL

### PRODUCTS BOOKED BY RYAN AERO

New Metal Products business totaling \$500,000 for Ryan manifolds and jet engine parts has been contracted for in the past few weeks, Sam C. Breder, sales manager of Ryan Aeronautical Company, announced today.

Approximately a quarter of a million dollars of new business has been placed by General Electric Co. for additional jet engine components, supplementing the large volume of exhaust cones, combustion chambers and transition liners now in production.

New exhaust manifold system business, also amounting to about \$250,000, has been received from the U. S. Air Force for a number of multi-engined bomber and cargo planes.

INSTRUCTIONS  
FOR FORM 1041-1077

These instructions apply to Form 1041-1077, which is used to report the income of a trust or estate. The instructions are organized into sections that correspond to the parts of the form. Each section contains information about the form, including the instructions for completing each part. The instructions are written in a clear, step-by-step format to help you understand how to complete the form correctly. If you have any questions, you should consult the instructions for Form 1041-1077, which are available in the Instructions for Form 1041-1077 booklet.



## PRESS RELEASE

FROM BILL WAGNER

Mailing Out: 3-7-50  
San Diego Red  
Aviation Mags 1 & 2  
Financial Red

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

### RYAN GETS \$750,000 ORDER FOR MORE BOEING FUSELAGES

With delivery this month of the 50th aft fuselage section built by Ryan Aeronautical Company for Boeing C-97 Stratofreighters and 377 Stratocruisers, receipt of a re-order for additional units has been disclosed, assuring re-activation of this assembly line at the San Diego plant.

The new contract with Boeing is for approximately three-quarters of a million dollars and calls not only for the 30-foot long C-97A aft fuselage sections but also for cargo doors and for all the floor beams for the additional number of Boeing military cargo planes to be built. Production will get under way first on floor beams as these must be supplied to Boeing for assembly with the other sections of the fuselage which are built at the Seattle plant.





# PRESS RELEASE

For Release  
Wednesday,  
March 22

FROM BILL WAGNER

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

## RYAN AERONAUTICAL OFFICERS RE-ELECTED

### FOLLOWING ANNUAL STOCKHOLDERS MEETING

All officers of the Ryan Aeronautical Company, headed by T. Claude Ryan, President, were yesterday renamed by the Board of Directors for the ensuing year.

The Board action followed the annual meeting of shareholders at which four directors were re-elected and a new Director, Melvin H. Lockett, selected to serve. Lockett, a nominee of the Ryan management, is a partner in the firm of Mattison, Thomas & Lockett, certified public accountants of Los Angeles and a Director of Oceanic Oil Company.

The new director takes the place on the Board held since 1943 by Mr. Frank N. Phillips, who passed away last December. The remaining portion of Mr. Phillips' last term was served by Mr. H. G. Sloane, who has been the legal counsel of the company for many years.

Directors re-elected were T. Claude Ryan, President; G. C. Woodard, Executive Vice President and Treasurer; Earl D. Prudden, Vice President; and C. Arnholt Smith, Chairman of the Board of United States National Bank and of the National Steel and Shipbuilding Corporation of San Diego.

Last year's operations and business developments since the close of the fiscal year were reviewed and discussed during the question and answer period. Ryan reports new orders of \$1,000,000 in value received during the current month to date, and substantially increasing volume of additional business under negotiation and in prospect.

Besides Ryan, Woodard and Prudden, other Ryan company officers renamed by the Board include C. A. Stillwagen, Secretary; L. L. Underwood, Assistant Treasurer; and D. H. Ockerman, Assistant Secretary.

Dear Sir,

I have the honor to acknowledge the receipt of your letter of the 10th inst.

in relation to the matter mentioned therein.

I am sorry to hear that you are unable to attend the meeting.

I will be glad to discuss the matter with you at another time.

I am, Sir, very respectfully,  
Your obedient servant,

J. H. [Name]

[Address]

[City, State]

[Additional text]

[Additional text]

[Additional text]



# PRESS RELEASE

Mailed 3-28-50  
San Diego 5  
Aviation Red  
Financial Red

FROM BILL WAGNER

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

RYAN GETS \$1,000,000 INCREASE

IN GENERAL ELECTRIC JET PARTS

A \$1,000,000 extension of its contracts with General Electric Company for additional quantities of the jet engine parts Ryan Aeronautical Company has been manufacturing for the past two years was received yesterday, Sam C. Breder, Ryan sales manager, announced.

On the basis of the new orders, Ryan production of parts for the General Electric J-47 jet engine is assured until August, 1951. The stainless steel exhaust cones and other Ryan-built parts are shipped to Lockland, Ohio, for final assembly at the factory G.E. has taken over there especially for J-47 production. Exact quantities to be built cannot be released but Ryan indicated they run into thousands of units.

For Release  
Wednesday,  
March 29







MAILING OUT: 6-12-50  
Financial Red  
For Release S.D. 4  
Tuesday,  
June 13

FROM BILL WAGNER

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

# PRESS RELEASE

## RYAN AERONAUTICAL REPORTS \$225,878 NET FOR HALF YEAR

The Ryan Aeronautical Company yesterday released to stockholders the following financial information for the six months ended April 30, 1950, showing net income of \$225,878.

Total Current Assets	\$ 5,673,562
Total Liabilities	2,110,795
Net Current Assets - (Working Capital)	<u>\$ 3,562,767</u>
Fixed Assets - Less Depreciation	1,022,831
Other Assets	18,829
Net Worth (Capital Stock & Surplus)	<u><u>\$ 4,604,427</u></u>
Net Sales	\$ 5,565,668
Cost of Sales & Other Expenses	5,189,356
Income Before Taxes	<u>\$ 376,312</u>
Provision for Federal Income & State Franchise Taxes	150,434
Net Income for First Half 1950 Fiscal Year	<u><u>\$ 225,878</u></u>

Net profit for the full 1949 fiscal year, ended October 31, 1949, was \$358,052.

In his letter to stockholders, T. Claude Ryan, president, pointed out that "the stage of completion and of deliveries under major contracts usually has an important effect on the income reflected in any one period. Therefore, these earning figures should not be considered as a gauge of the rate of profit that may be shown for the full year."



*Ryan*

PRESS RELEASE

Mailing Out: 8-4-50

FROM BILL WAGNER

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

For p.m. Release  
Monday, August 7

Distribution:

San Diego Red  
Avia. Mags 1 & 2  
Financial Red  
Wire Services Red  
Misc. Red

\$10,000,000 IN NEW ORDERS

FOR RYAN AERONAUTICAL CO.

The largest single order since World War II has just been received by Ryan Aeronautical Company, T. Claude Ryan, president, disclosed today in announcing the first details of a production expansion program the company has already begun. This order brings to over \$10,000,000 new contracts received in the past 30 days.

Under the new contract with Boeing Airplane Company of Seattle, Ryan will greatly increase its production of the huge aft fuselage sections for the Air Force's giant C-97 Stratocruiser military transports.

For the past 18 months Ryan has been building C-97 fuselage sections and other components for Boeing. Now the schedule will be built up rapidly to a peak monthly production rate which will then be continued far into the future.

Under new military security regulations neither the number of units to be built or dollar value of individual contracts can be revealed.

In addition to this order from Boeing, production planning is under way for other contract increases scheduled but not yet firmed by formal orders, the company president said. Ryan is already producing most of the important products on which increased volume is planned, Ryan stated, pointing out that the necessary production machines, tooling and key personnel are already available. Placing orders with firms already producing important assemblies for military planes permits the fastest possible acceleration in American air power, he said.

1875

MEMORANDUM

Faint, illegible text covering the majority of the page, likely representing the main body of a memorandum or report.

Volume military work Ryan is presently doing includes production of stainless steel components for jet and gas turbine engines, fuel tanks which are reportedly the largest ever built, and exhaust systems for transport and bomber planes, all reported scheduled for accelerated production. The company has been requested by interested engine manufacturers to furnish full details of jet engine production capacity on a multi-shift basis and definite confirmation of orders is expected soon.

During the past three months Ryan has added 425 new employees, more than half of them in the last 30 days. Current level is approximately 1800 workers which may be built up over a period of months to around 4000. About a thousand new workers will be required in the next 90 days as the plant swings into the increased production rate on the Boeing fuselages and other accelerated schedules.

In anticipation of the expansion program Ryan began stepping up production and delivery of all orders on hand immediately after the outbreak of hostilities in Korea. This advance planning is permitting Ryan to "clear the decks" for the influx of additional contracts now being received.

The Ryan plant has been operating two shifts for many months, with the second shift employing only a few hundred workers. The second shift is now being built up, and a third shift added last week will be increased as rapidly as the work load builds up.

Besides its sub-contract work, Ryan also holds prime contracts with both the Air Force and Navy Bureau of Aeronautics, for jet-propelled target planes, guided missile research, new applications of jet propulsion and exhaust systems, and other such advanced work. Just how these might be affected by the increased aircraft procurement program, Ryan said he could not discuss. In



addition, the company is producing Ryan Navion executive business planes at a two-a-day production rate. Several hundred military versions of the Navion, known as the L-17, have been built for the Army Field Forces and National Guard for use as liaison planes and for personnel transportation.







## PRESS RELEASE

Mailing Out: 10-11-50  
San Diego Red  
San Diego Yellow

FROM BILL WAGNER

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

### SMITH AND IMMENSCHUH APPOINTED TO TOP ENGINEERING POSTS AT RYAN

Appointment of Bruce Smith to the position of Director of Engineering of the Ryan Aeronautical Company, San Diego, was announced today by T. Claude Ryan, president. For Smith, the appointment is an advancement to the company's top engineering post from his former position as Chief Engineer of Ryan's Airplane Division.

Smith is a veteran of 20 years aircraft engineering activity. Prior to his association with Ryan in 1949, he served nine years as Chief Design Engineer for Consolidated Vultee Aircraft Corp. Before that he was Chief Engineer for the Travelair Aircraft Corp.

Announced concurrently with Smith's appointment was the promotion of W. T. Immenschuh to Executive Engineer, principal aid to the Director of Engineering. Immenschuh's appointment is an interesting development in a "local boy makes good" career that began here when he joined the Ryan engineering department after graduation from local schools and the engineering division of the Ryan School of Aeronautics.

Ten years in design work for Ryan military contracts, including experience as project engineer on important war and postwar developments, preceded his present promotion to the Executive Engineer position with responsibility for proper functioning of all engineering operations.

THE STATE OF WEST VIRGINIA

IN SENATE

January 10, 1907

REPORT

OF THE

COMMISSIONERS OF THE LAND OFFICE



## PRESS RELEASE

Mailing Out: 10-11-50  
Aviation Mans I &  
Tech. Red & Yellow

FROM BILL WAGNER

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

### BRUCE SMITH NAMED RYAN DIRECTOR OF ENGINEERING

Appointment of Bruce Smith to the position of Director of Engineering of the Ryan Aeronautical Company, San Diego, was announced today by T. Claude Ryan, president. For Smith, the appointment is an advancement to the company's top engineering post from his former position as Chief Engineer of Ryan's Airplane Division.

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Announced concurrently with Smith's appointment was the promotion of W. T. Immenschuh to Executive Engineer, principal aid to the Director of Engineering. Ten years in design work for Ryan military contracts, including experience as project engineer on important war and postwar developments, preceded the appointment to his new position with responsibility for proper functioning of all engineering operations.





# PRESS RELEASE

FROM BILL WAGNER

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

Mailing Out: 11-1-49  
San Diego Rec  
Financial Rec  
Avia. Mans 1  
& 2

## RYAN ADVANCES TWO TO NEW FINANCE POSTS

Advancement of two key executives of the Ryan Aeronautical Company to new finance posts was announced following yesterday's meeting of the Board of Directors of the San Diego aircraft firm.

L. L. Underwood, who became Assistant Treasurer last year after eight years' service with the company, was named Controller. He joined the Ryan School of Aeronautics of Arizona, at the company's wartime pilot training center at Tucson. After the war he transferred to the parent company's accounting staff.

Dale H. Ockerman, Assistant Secretary of the corporation, was elected to serve also as Assistant Treasurer. Ockerman is a ten-year veteran with Ryan, having served in many accounting capacities. Just last week he was presented the Merit Award of the National Office Management Association.



*Ryan*

PRESS RELEASE

FROM BILL WAGNER

Mailing Out: 11-9-50  
San Diego Red  
" " Yellow  
Aviation Mags 1

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

2000 RYAN WORKERS GO  
ON SIX-DAY WORK WEEK

Two thousand production workers at Ryan Aeronautical Company will go on a six-day 48-hour week starting today to speed work on an increasing volume of military aircraft contracts, company officials have announced.

Office and engineering employees will continue to work a 40-hour week, except for those whose duties require close coordination with manufacturing departments. Hourly employees working 48 hours will receive pay for 52 hours since time-and-a-half is paid for all hours over 40 in a work week. This will increase take-home pay of hourly-paid Ryan workers on the six-day work week by 30 percent. Two shifts are being worked, with approximately 500 currently on the second shift.

"The change from a 40-hour to 48-hour work week in production departments will, in effect, be the equivalent of adding 250 skilled workers to our present payroll, but this will not solve the problem of bringing the necessary number of additional skilled workers into aircraft production in our factory," said T. Claude Ryan, president.

Ryan products include important items for the military services on which increased production rates are now required. Several of these contracts provide for heavy manufacturing schedules for at least the next two years. Included in current contracts are Ryan jet-propelled pilotless aircraft, huge fuselage assemblies for military transport planes, special type fuel tanks, numerous aircraft parts and assemblies, jet engine components and stainless steel exhaust systems, heat exchangers and allied products for nearly every major American aircraft company.

IN SENATE, FEBRUARY 10, 1880.

REPORT OF THE  
COMMISSIONERS OF THE  
LAND OFFICE.

The following is a list of the lands owned by the State of Texas, and the amount of the same, as reported by the Commissioners of the Land Office, for the year ending on the 31st day of December, 1879.

The lands are classified as follows:

1. Lands reserved for the support of the public schools.

2. Lands reserved for the support of the public institutions.

3. Lands reserved for the support of the public charities.

4. Lands reserved for the support of the public works.

5. Lands reserved for the support of the public buildings.

6. Lands reserved for the support of the public parks.

7. Lands reserved for the support of the public squares.

8. Lands reserved for the support of the public streets.

9. Lands reserved for the support of the public bridges.

10. Lands reserved for the support of the public ferries.

11. Lands reserved for the support of the public wharves.

12. Lands reserved for the support of the public docks.

13. Lands reserved for the support of the public harbors.

14. Lands reserved for the support of the public canals.

15. Lands reserved for the support of the public railroads.

16. Lands reserved for the support of the public telegraphs.

17. Lands reserved for the support of the public telephones.

18. Lands reserved for the support of the public post-offices.

19. Lands reserved for the support of the public courthouses.

20. Lands reserved for the support of the public jails.

21. Lands reserved for the support of the public prisons.

22. Lands reserved for the support of the public asylums.

23. Lands reserved for the support of the public hospitals.

24. Lands reserved for the support of the public almshouses.

25. Lands reserved for the support of the public workhouses.

26. Lands reserved for the support of the public farms.

27. Lands reserved for the support of the public gardens.

28. Lands reserved for the support of the public orchards.

29. Lands reserved for the support of the public vineyards.

30. Lands reserved for the support of the public plantations.

31. Lands reserved for the support of the public mills.

32. Lands reserved for the support of the public windmills.

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## PRESS RELEASE

Mailing Out: 11-13-50  
San Diego Red (5)  
Aviation Mags 1

FROM BILL WAGNER

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

JOHN ATHA NAMED RYAN

DAYTON REPRESENTATIVE

Appointment of John Atha as Midwest Representative of the Ryan Aeronautical Company's Metal Products Division with headquarters at Dayton, Ohio, has just been announced by Sam C. Breder, Customer Service head.

Atha has joined the Ryan organization following many years' service with the Curtiss-Wright Airplane Division where his most recent assignment was as that company's representative at Dayton.

Ryan's new representative relieves Charles Kinney who has recently served on temporary assignment, providing liaison with the Air Materiel Command at Wright-Patterson Field and with Ryan's midwest exhaust systems and jet engine components customers. Kinney returns to the company's San Diego headquarters where he will be associated with C. L. Foushee, Jr., Service Manager, in providing close coordination with customers of the company's Metal Products Division.

Atha is well known at Dayton having been with the Air Materiel Command in a wartime civilian capacity for five years. Following that he joined Curtiss-Wright at their Columbus, Ohio, plant where he was chief contract administrator prior to assignment as Dayton representative of the Airplane Division.

11-13-50

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# PRESS RELEASE

For Release  
Thursday  
November 23

FROM BILL WAGNER

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

RYAN AERONAUTICAL CO.

CHANGES DIVIDEND POLICY

DECLARES 10 CENT PAYMENT

Mailing Out: 11-22  
San Diego Red  
Aviation Mags 1  
Financial Red  
" Yellow

Directors of the Ryan Aeronautical Company have declared a cash dividend of 10 cents per share, payable December 27 to stockholders of record December 12.

With declaration of the dividend, Ryan directors announced that it is now the intention of the Board that the payment of dividends be considered quarterly.

For the past several years it has been the policy of the directors to consider the matter of dividend payments annually after the close of the fiscal year. Since 1947 these annual dividend payments have been made in March of each year.

11-22-50

1850

1850

1850

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*Ryan***PRESS RELEASE**For Release  
Thursday,  
December 21

FROM BILL WAGNER

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

## RYAN AERONAUTICAL COMPANY

BACKLOG TOPS \$25,000,000

Unfilled orders of the Ryan Aeronautical Company now exceed \$25,000,000, T. Claude Ryan, president, stated today. During the past thirty days new contracts totaling more than \$4,000,000 have been closed.

Included in these latest orders are contracts from General Electric for continued volume production of important components for the latest types of jet engine power plants. Other important orders just received are those from Pratt and Whitney and Douglas Aircraft Company for Ryan-developed stainless steel exhaust systems.

Employment at Ryan near the year-end has increased 67 percent since June to over 2500 workers. An intensive hiring program is now under way to provide the necessary work force for the rapidly expanding military aircraft program. By July, 1951, Ryan employment is scheduled to reach 4000.

In recent months additional large orders have been placed with Ryan for both airframe and engine components. Further increases in production rates are being asked on many of these contracts -- several of which call for accelerated manufacturing schedules for at least the next two years.

Ryan is now building jet-propelled pilotless aircraft, huge fuselage assemblies for military transport planes, special type fuel tanks and numerous other aeronautical products, Navion executive liaison planes, jet engine components and exhaust systems and allied stainless steel products for nearly every major American aircraft company.

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*Ryan*

PRESS RELEASE

FINANCIAL RED

FROM BILL WAGNER

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

RYAN AERONAUTICAL CO. TO

PAY 10¢ QUARTERLY DIVIDEND

A QUARTERLY DIVIDEND OF 10¢ PER SHARE HAS  
BEEN DECLARED BY THE BOARD OF DIRECTORS OF THE  
RYAN AERONAUTICAL COMPANY, PAYABLE MARCH 12, 1951,  
TO STOCKHOLDERS OF RECORD AS OF FEBRUARY 21, 1951.

1-29-51





RYAN AERONAUTICAL CO. <sup>company</sup> INSTALLS

LARGEST MACHINE TOOL OF KIND ON PACIFIC COAST

The largest machine tool of its kind in the west was in operation today at Ryan Aeronautical Co. <sup>company</sup> to step up production of jet ~~assembly~~ <sup>engine</sup> parts.

The installation, a 40-ton, 13-foot high vertical turret lathe, <sup>nicknamed "Hi Boy",</sup> ~~is~~ <sup>dismantled</sup> is so bulky that a portion of the main factory building's wall had to be ~~removed~~ while it was moved into place after its arrival on a special flat car from the factory in Bridgeport, Conn.

Ryan production engineers said ~~that~~ this lathe has the highest boring mill with raised bed ever installed on the Pacific Coast. Its ~~rotating~~ turning table will accommodate metal sections ranging from one half inch to just under 7 feet in height.

Production <sup>on</sup> such items as ~~the~~ huge 48-inch aluminum rings for external fuel tanks will be increased 25 percent over previous methods, ~~Bill~~ <sup>Dick</sup> Darwin ~~is~~ Whetstine, foreman of Ryan jet assembly departments, stated. Similar increased production rates are anticipated on cones, aft frames and other jet engine assemblies.

The lathe is so simple to operate that one man can run it safely, manipulating the gear control arm to set off electrical solenoids. These, in turn, hydraulically actuate gear changes to produce desired rotating ~~up~~ speeds up to 160 rpm on the fast-whirling table.

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2-2-51 K



*Ryan*

PRESS RELEASE

MAILED TO:  
AVIATION MAGS 1  
2-7-51

FROM BILL WAGNER

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

KEEN JOINS PUBLIC RELATIONS  
STAFF OF RYAN AERONAUTICAL

HAROLD KEEN, AVIATION WRITER AND GENERAL ASSIGNMENT REPORTER FOR THE SAN DIEGO EVENING TRIBUNE FOR 11 YEARS, HAS JOINED THE PUBLIC RELATIONS STAFF OF RYAN AERONAUTICAL COMPANY AS AN ASSISTANT TO WILLIAM WAGNER, PUBLIC RELATIONS MANAGER.

KEEN HAS BEEN A SAN DIEGO NEWSPAPERMAN FOR 15 YEARS, INCLUDING 4 YEARS ON THE NOW DEFUNCT SUN. A MEMBER OF THE AVIATION WRITERS ASSOCIATION, HE IS SAN DIEGO CORRESPONDENT FOR TIME AND LIFE MAGAZINES, AND THE LOS ANGELES TIMES. KEEN ALSO CONDUCTS DAILY RADIO NEWSCASTS AND TELEVISION NEWS INTERVIEW PROGRAMS, WHICH HE WILL CONTINUE IN HIS PRESENT CAPACITY AT RYAN.

2-6-51W





## PRESS RELEASE

FROM BILL WAGNER

RYAN AERONAUTICAL COMPANY • LINDBERGH FIELD • SAN DIEGO 12, CALIFORNIA

VAN DER LINDE NAMED PRODUCTION

MANAGER OF RYAN AERONAUTICAL CO.

H. J. VAN DER LINDE, 48, WHO JOINED THE RYAN ORGANIZATION 28 YEARS AGO, HAS BEEN ADVANCED TO THE POSITION OF PRODUCTION MANAGER OF THE RYAN AERONAUTICAL COMPANY, T. CLAUDE RYAN, PRESIDENT, ANNOUNCED YESTERDAY.

STARTING AS A FLIGHT MECHANIC AND CO-PILOT ON THE LOS ANGELES-SAN DIEGO RUN OF RYAN AIRLINES, INC., IN 1923, VAN DER LINDE HAS HELD MANY KEY POSTS WITH RYAN, HIS MOST RECENT HAVING BEEN AIRPLANE PRODUCTION SUPERINTENDENT.

R. L. CLARK, FORMER ASSISTANT DIRECTOR OF RYAN'S CUSTOMER SERVICE DEPARTMENT, HAS BEEN APPOINTED ASSISTANT PRODUCTION MANAGER UNDER VAN DER LINDE, AND J. C. ZIPPWALD WAS ADVANCED FROM FIELD SERVICE REPRESENTATIVE TO CLARK'S PREVIOUS POSITION IN CUSTOMER SERVICE.

IN A REALIGNMENT OF FACTORY SERVICE FUNCTIONS, THE PRODUCTION ENGINEERING DIVISION UNDER H. P. RASP HAS BEEN ENLARGED IN SCOPE TO INCLUDE PRODUCTION CONTROL AND METHODS ENGINEERING, AND WILL BE KNOWN AS THE FACTORY SERVICE DIVISION, WITH RASP AS MANAGER.

VAN DER LINDE, WHO CAME TO SAN DIEGO AT THE AGE OF 19 FROM HIS NATIVE NETHERLANDS EAST INDIES WITH HIS PARENTS, HAS SUPERVISED THE ASSEMBLY OF EVERY RYAN MODEL FROM THE HIGH-PERFORMANCE JET-PUSHED, PROPELLER-PULLED FIREBALL NAVY FIGHTER AND THE SLEEK, FOUR-PLACE NAVION EXECUTIVE-LIAISON PLANE TO THE SLOW BIPLANE TYPES OF POST-WORLD WAR I AND THE RYAN M-1 WHICH PIONEERED AIRMAIL SERVICE ON THE WEST COAST.

OTHER AIRCRAFT WERE THE BROUGHAM, PROTOTYPE OF LINDBERGH'S SPIRIT OF ST. LOUIS; THE S-T SERIES OF LOW-WING TRAINERS IN WHICH TENS OF THOUSANDS OF AIR FORCE PILOTS LEARNED TO FLY; THE S-C PRIVATE OWNER CABIN PLANE SERIES; AND THE YO-51 "DRAGONFLY", A STEEP-LANDING, SHORT TAKEOFF OBSERVATION PLANE FOR THE AIR FORCE.

FOR IMMEDIATE RELEASE

STATE OF THE INDUSTRY

At the 1988 Annual Meeting, the Board of Directors of Thyssen Steel AG has adopted a resolution to increase the share capital by 10% to 1,000 million DM. This increase is necessary to ensure the company's financial stability and to enable it to continue its expansion program.

The Board of Directors has also decided to pay a dividend of 10 DM per share for the year 1988. This dividend is payable on 15th September 1989. The Board of Directors is confident that the company's financial position will continue to improve in the coming years.

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VAN DER LINDE IS MARRIED AND HAS TWO SONS, HENRY, 18, ENROLLED IN SAN DIEGO JUNIOR COLLEGE, AND JOHN, 14, A STUDENT AT WOODROW WILSON JUNIOR HIGH SCHOOL. THE FAMILY RESIDES AT 4550 FIFTY-SIXTH ST.

2-13-51K





AIRCRAFT WORKERS ARE THE HOMING PIGEONS OF INDUSTRY.

BETWEEN WARS OR NATIONAL EMERGENCIES, THEY SCATTER TO FAR-FLUNG PLACES AND VARIOUS OCCUPATIONS.

WHENEVER THE FULL-THROATED ROAR OF AMERICA'S AERIAL MIGHT SWELLS IN ~~THE~~ VOLUME, WHICH HAS ~~PROVED TERRIFYING TO THE ENEMY,~~ THE WORKERS FLOCK BACK TO THEIR OLD JOB STATIONS.

THEY DROP THEIR PEACETIME ACTIVITIES AND RETURN TO THE RIVET GUN, THE DROP-HAMMER, THE PUNCH PRESS, THE DRILL, THE LATHE AND THE COUNTLESS TOOLS THAT FORGE AMERICA'S UNBEATABLE INDUSTRIAL MIGHT.

"IT GETS UNDER YOUR SKIN, AND ALWAYS STAYS A PART OF YOU, I GUESS," A GRIZZLED MACHINIST AT RYAN AERONAUTICAL COMPANY REMARKED.

"FOR ME, IT WAS LIKE COMING BACK HOME."

AT RYAN AND OTHER AIRCRAFT PLANTS IN THIS AREA, PERSONNEL MANAGERS HARASSED BY THE SHORTAGE OF SKILLED MANPOWER ARE THANKFUL FOR THESE "HOMING PIGEONS." THEY COMPRISE A QUICKLY TAPPED POOL OF SAVVY LABOR WHICH IMMEDIATELY SWINGS INTO THE TEMPO OF DEFENSE PRODUCTION.

THERE'S LITTLE OF THE LOST TIME OF IN-PLANT TRAINING REQUIRED OF THE RAW NEWCOMERS ON WHICH INCREASING RELIANCE MUST BE PLACED IN THE INDUSTRY'S MUSHROOM EXPANSION, A REPETITION OF THE EARLY DAYS OF WORLD WAR II.

"IT'S THOUGH THEY HAD NEVER LEFT," SAYS JAMES W. BUNNELL, RYAN PERSONNEL CHIEF. "MANY PICK UP THEIR TOOLS AND GO TO WORK AS IF THEY WERE JUST RETURNING FROM A WEEK-END."

EMPLOYMENT MANAGERS SAY THEY "SEE HALOS OVER THE HEADS" OF THE "OLD-TIMERS" WHEN THEY APPEAR FOR REHIRING. "WE'RE TICKLED PINK TO HAVE THEM BACK," AN EXECUTIVE REMARKED.

AIRCRAFT WORKERS ARE THE HONORING PIONEERS OF INDUSTRY.

BETWEEN WARE OR NATIONAL EMERGENCIES, THEY SCATTER TO THE FOUR WINDS AND

VARIOUS OCCASIONS.

HOWEVER THE FULL-THROATED HOAN OF AMERICA'S AERIAL NIGHT SWELL IN THE VOLUME

WHICH HAS PROVED FERTILITY TO THE CROWN, THE WORKERS FLICK BACK TO THE OLD OR

STATINGS,

THEY DROP THEIR PLEASANT ACTIVITIES AND RETURN TO THE RIGHT WAY, THE DROP-

HAMMER, THE PUNCH PRESS, THE MILL, THE LATHE AND THE COUNTLESS TOOLS THAT SERVE

AMERICA'S UNBETTERED INDUSTRIAL MIND.

"IT GETS UNDER YOUR SKIN, AND ALWAYS STAYS A PART OF YOU, I SUPPOSE," A CHAIRMAN

MACHINIST AT THE UNIVERSITY OF CALIFORNIA COMMENTED.

"FOR ME, IT WAS LIKE COMING BACK HOME."

AT WASH AND OTHER AIRCRAFT PLANTS IN THIS AREA, PERSONNEL MANAGERS HAVEN'T

THE MINDSET OF SKILLED WORKERS AND THANKFUL FOR THEIR "HONORING PIONEERS," THEY CON-

PRISE A QUICKLY JARRED POOL OF DAVY LADDS WHICH IMMEDIATELY SWINE INTO THE TROOP

OF AERIAL PRODUCTION.

THERE'S A LITTLE OF THE LOST TIME OF IM-PLANT TRAINING STROBED BY THE NEW NEW-

COMERS ON WHICH INCREASING RELIANCE MUST BE PLACED IN THE INDUSTRY'S WISDOM EXPANSION.

A RECEPTION BY THE EARLY DAYS OF 1918 OR 19.

"IT'S THROUGH THEY'VE NEVER LEFT," SAYS JAMES W. BUNNELL, WASH-PERSONNEL CHIEF.

"MAY BE UP THEIR TOOLS AND GO TO WORK AS IF THEY WERE NOT RETURNING FROM A WARR-

ING."

CONCERNED MANAGERS SAY THEY "LET THEM GOVERN THE ROAD" BY THE "OLD-TIME"

WHEN THEY SWELL FOR REHIRING. "MAYBE TICKLED THEM TO HAVE THEM BACK," AN EXECUTIVE

REMARKS.

WHEN WORLD WAR II ENDED AND AIRCRAFT ORDERS WERE CANCELLED, NUMEROUS WORKERS RETURNED TO THEIR FORMER HOMES ALL OVER THE COUNTRY AND TOOK JOBS THERE. THE YEARNING FOR SAN DIEGO WAS NEVER QUELLED IN MANY HEARTS, AND IN RECENT MONTHS THE INFUX TO THEIR "ADOPTED" HOME HAS RESUMED.

"WE'RE BEGINNING TO GET LETTERS OF INQUIRY FROM WORLD WAR II WORKERS, ASKING IF THERE ARE JOBS FOR THEM SHOULD THEY COME BACK TO SAN DIEGO," BUNNELL DECLARED. "SINCE THE LAST WAR, THEY'VE BEEN WORKING ON FARMS OR IN SMALL BUSINESSES IN ALL PARTS OF THE UNITED STATES, AND NOW THEY'RE ANXIOUS TO RETURN TO THE AIRCRAFT INDUSTRY."

FOR EXAMPLE, KENNETH MATTHEWS, A MANIFOLD ASSEMBLER WHO WAS TERMINATED AT WAR'S END, WENT BACK TO LAKE CITY, IOWA WHERE HE WORKED IN A WELDING SHOP AND DRILLED WELLS UNTIL HE HEARD THAT AIRCRAFT JOBS AGAIN WERE AVAILABLE HERE.

"I ALWAYS WANTED TO COME BACK," HE EXPLAINED. "I NEVER FOUND A BETTER PLACE TO WORK."

LLOYD DOERGE, A WELDER, SPENT THE YEARS SINCE WORLD WAR II IN AND AROUND LA CROSSE, WISCONSIN ON VARIOUS WELDING JOBS. HE RETURNED TO SAN DIEGO RECENTLY. HIS SIMPLE EXPLANATION: "I ENJOYED WORKING HERE BEFORE, SO I CAME BACK."

MANY EXPERIENCED THE TRIBULATIONS OF BEING "ONE'S OWN BOSS" AFTER WORLD WAR II. THEY WENT INTO BUSINESS FOR THEMSELVES, NOW ARE SATISFIED WITH HOLDING DOWN JOBS HELPFUL TO THE DEFENSE EFFORT.

STILL OTHERS TOOK PROLONGED VACATIONS AFTER THE LONG PERIOD OF INTENSIVE WORK UNDER PRESSURE.

CECIL R. HAMLET AND HIS WIFE TRAVELLED FOR ALMOST 4 YEARS. HE HAD STARTED IN THE AIRCRAFT INDUSTRY HERE IN 1936, CLIMBING TO FOREMAN OF SHEET METAL FABRICATION TEN YEARS LATER.

"MY WIFE AND I WANTED TO SEE HOW OTHER PEOPLE LIVED," HAMLET EXPLAINED. "WE LEARNED A LOT, AND DISCOVERED THAT SAN DIEGO IS THE BEST PLACE TO LIVE AND WORK."

COPY

WOMEN WORLD WAR II...  
RETURNED TO THEIR...  
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"SINCE...  
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SOCIETY."

FOR EXAMPLE...  
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LEADER...

TODAY <sup>A</sup>HAMLET IS HANDLING PRESSURE TESTS ON THE BOEING FUSELAGE SECTIONS BEING BUILT BY RYAN. HE HAD TO START OUT AS AN HOURLY PAID WORKER, BUT "I'M SURE BATTLING TO BECOME A FOREMAN AGAIN."

THOSE WHO LEFT THE INDUSTRY OF THEIR OWN VOLITION FOR "GREENER" FIELDS OFTEN REGRET THEY LOST THEIR CONTINUITY OF EMPLOYMENT. "I WISHED I NEVER HAD LEFT," SAID W. A. "BUD" MEIXNER, AN ASSISTANT FOREMAN AT RYAN. "I MIGHT BE BETTER OFF TODAY."

THE NEW EMERGENCY HAS ALSO BROUGHT MANY OLD-TIMERS OUT OF THE "MOTHBALLS" OF RETIREMENT.

OBSERVE, FOR INSTANCE, JOHN J. "RED" HARRIGAN, ONE OF SAN DIEGO'S MOST COLORFUL PIONEER AVIATORS.

"RED" ENTERED NAVAL AVIATION IN 1916, FLEW FOR 9 YEARS BEFORE RETURNING TO CIVILIAN LIFE AS A FLIGHT INSTRUCTOR AND TEST PILOT FOR RYAN. THE DEPRESSION OF THE EARLY THIRTIES SEPARATED HIM FROM HIS JOB, ALSO. "GOLD FEVER" SENT HIM ON A NONE-TOO-PROFITABLE FLYING EXPEDITION TO THE YUKON TERRITORY. LATER HE SERVED AS PRIVATE PILOT FOR A MILLIONAIRE IN CHICAGO. FOR THREE YEARS HE WAS LINDBERGH FIELD MANAGER FOR THE SAN DIEGO HARBOR DEPARTMENT, UNTIL THE NAVY CALLED HIM BACK TO ACTIVE DUTY IN THE LAST WAR.

AFTER THE WAR, HE RELAXED IN HIS HOME IN HARBISON CANYON FOR SEVERAL YEARS.

"BUT I GOT TIRED OF LYING AROUND DOING NOTHING, AND THERE WAS JUST ONE PLACE FOR ME TO DO ANY GOOD WHEN THIS NEW EMERGENCY CAME UP," HE SAID. "THAT WAS IN THE AIRCRAFT INDUSTRY."

TODAY, AT 63, "RED" HARRIGAN HAPPILY DRIVES 60 MILES EACH DAY TO AND FROM WORK AS AN INSPECTOR AT RYAN.

OR, TAKE THE CASE OF FRED MAGULA, WHO HAS SPENT MOST OF HIS ADULT LIFETIME IN THE AIRCRAFT INDUSTRY, EXCEPT FOR THE BETWEEN-WARS VAGARIES OF EMPLOYMENT.

COPY

TODAY HENRY IS REMINDING HIS FRIENDS ON THE LOCAL STADIUM, HOPKINS IS THE  
BUILT BY HENRY. HE HAD TO WAIT AS AN HOURLY AIR WORKER, BUT HE WAS NOT  
TO BECOME A FORTUNE TELLER.

THOSE WHO LEFT THE UNIVERSITY OF THEIR OWN VOITION FOR "BRIGHTER" FUTURE AFTER  
REGRET THEY LOST THEIR COMFORT OF EMPLOYMENT. "I WISH I NEVER HAD LEFT,"  
SAID W. H. "DICK" HARRISON, AN ASSISTANT FOREMAN AT HENRY. "I WISH HE WOULD BE ACTIVE FOR  
TODAY."

THE NEW UNIVERSITY HAS ALSO BROUGHT MANY STUDENTS OUT OF THE "HONORABLE" OF  
RETIREMENT.

FOR INSTANCE, JOHN A. "DICK" HARRISON, THE SON OF HENRY'S FIRST COLLEGE  
PIERCE HARRISON.

"DICK" ENTERED HENRY'S SERVICE IN 1910, AFTER HIS 3 YEARS SERVICE AT HENRY TO  
CIVILIAN LIFE AS A FLIGHT INSTRUCTOR AND WAS WITH HENRY FOR YEARS. THE REASON FOR  
THE EARLY SERVICE WAS BECAUSE HIS FATHER WAS A "DICK" HARRISON. "DICK" HARRISON WAS  
WENT-TOO-PROMPTLY LEAVING EMPLOYMENT TO THE "HONORABLE" LIFE. LATER HE WAS  
PRIVATE, FIRST THE MILLERMAN IN CHICAGO. FOR THREE YEARS HE WAS THROUGH FIVE  
MANAGER FOR THE SAM DICK HARRISON DEPARTMENT, UNTIL THE BANK CALLED HIM BACK TO ACTIVE  
DUTY IN THE LAST WAR.

AFTER THE WAR, HE REMAINED IN HIS WORK IN HENRY'S SERVICE FOR SEVERAL YEARS.  
"BUT I GOT TIRED OF THE WORK AND THE HOURS, AND THERE WAS NO OTHER PLACE  
FOR ME TO GO TO THE ONLY PLACE WITH THE "HONORABLE" LIFE. THAT WAS IN THE  
ALSO IN "HONORABLE."

TODAY, AT 65, "DICK" HARRISON HAS BEEN IN HENRY'S SERVICE FOR 50 YEARS AND IS  
AS AN INSTRUCTOR AT HENRY.

ON THE LAST DAY OF HIS SERVICE, HE WAS AWARDED THE "HONORABLE" LIFE AND  
THE AIRCRAFT INSTRUCTOR, APOSTrophe FOR THE "HONORABLE" LIFE OF HENRY.

FRED WAS ONE OF THE SMALL GANG OF ENTHUSIASTIC RYAN WORKERS WHO LABORED DAY AND NIGHT TO FINISH LINDBERGH'S "SPIRIT OF ST. LOUIS." LATER HE WENT TO ST. LOUIS TO WORK FOR LINDBERGH'S BACKERS. EVENTUALLY HE WOUND UP IN DETROIT, OUT OF A JOB WHEN THE DEPRESSION HIT IN 1932. HE RETURNED TO CALIFORNIA, ENTERED THE BAKING BUSINESS WITH HIS BROTHER IN FRESNO.

BUT THE "HOMING PIGEON" INSTINCT ASSERTED ITSELF IN 1935, AND WHEN BUSINESS PICKED UP AT RYAN, HE RETURNED, BECAME SHEET METAL FOREMAN. FOR TEN UNINTERRUPTED YEARS, FRED REMAINED IN THE AIRCRAFT INDUSTRY, UNTIL THE POSTWAR PRODUCTION CUT-BACKS WHICH DISPLACED TENS OF THOUSANDS OF WORKERS.

DURING THE YEARS OF UNEASY PEACE, HE OPERATED A SERVICE STATION IN CHULA VISTA. WHEN THE KOREAN WAR ENDED THE AIRCRAFT INDUSTRY'S STARVATION DIET, HE MADE A BEE-LINE FOR HIS OLD HAUNTS. TODAY FRED MAGULA IS HAPPILY POUNDING AWAY AS A MECHANIC ON THE GIANT FUSELAGE SECTIONS PRODUCED BY RYAN FOR THE C-97 BOEING TRANSPORT.

THROUGHOUT SAN DIEGO'S AIRCRAFT INDUSTRY, REUNIONS ARE TAKING PLACE DAILY.

"YOU'RE BACK TOO!" IS THE CRY BEING HEARD AS THE "HOMING PIGEONS" COME HOME TO ROOST.

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COPY

THEM WAS ONE OF THE SMALL GANG OF ANTI-SEMITIC RYAN MEMBERS WHOSE NAMES WERE  
AND NIGHT TO FINISH LINCOLN'S 'SPIRIT OF ST. LOUIS'. LATER HE WENT TO ST. LOUIS  
TO WORK FOR LINCOLN'S BACKSET. EVENTUALLY HE FOUND UP IN OREGON, BUT OF A JOB  
WHEN THE DEPRESSION HIT IN 1932. HE RETURNED TO CALIFORNIA, ENTERED THE MAKING  
WORKING WITH HIS BROTHER IN LOS ANGELES.

BUT THE 'HOMING PIGEON' PROJECT ABANDONED ITSELF IN 1933, AND WITH SPOUSES  
PICKED UP AT RYAN, HE RETURNED. HE WAS DIRECTOR OF THE PROJECT. FOR THE INTERESTED  
YEARS, HE REMAINED IN THE AIRCRAFT INDUSTRY, UNTIL THE POST-WAR PRODUCTION CUT-  
BACKS WHICH OCCURRED DUE TO THE LOSS OF WARWORK.

URING THE YEARS OF DARKER PLACES, HE ENJOINED A SPECIAL STUDY IN CHINA VIETNAM.  
WHEN THE PROJECT WAS UNDER THE AIRCRAFT INDUSTRY'S STATIONING WITH US MAIN A RE-ENTRY  
FOR HIS JOB HUNTS. THEY WERE BRUCE BRUCE IT RAPIDLY CHANGING AWAY AS A WEEKEND ON THE  
GIANT AIRCRAFT BACKSET PROVIDED BY RYAN FOR THE (A-1) BATTLE THROUGHOUT.

THROUGHOUT THE DISEASE'S AIRCRAFT INDUSTRY, BRUCE WAS ALL TAKING PLACE DAILY.  
"YOU'VE BACK TO!" IS THE CITY BEING HELD AS THE 'HOMING PIGEON' COME HOME  
TO ROSET.

1933

1933



ONE FAMILY TODAY WILL PROVIDE THE ENTIRE SEMI-MONTHLY SAN DIEGO QUOTA OF RECRUITMENT FOR THE WAFS (WOMEN IN THE AIR FORCE).

CLAUDETTE LOUISE BEEM, 20, AND HER SISTER, DONNA MARIE, 19, BOTH OF 4541 ADAIR ST., WILL LEAVE THIS AFTERNOON (TUESDAY, FEBRUARY 27) FOR TRAINING AT LACKLAND AIR FORCE BASE, SAN ANTONIO, TEXAS.

WHEN THEY ENLISTED, THE PROBLEM OF MEETING THE WAF QUOTA FOR THE SECOND HALF OF FEBRUARY WAS SOLVED FOR PFC BETTY POWELL, IN CHARGE OF RECRUITING FOR WACS AND WAFS AT THE CHAMBER OF COMMERCE BUILDING, 435 WEST BROADWAY.

THE WAF QUOTA FOR SAN DIEGO IS FOUR A MONTH, IN TWO "INSTALLMENTS."

THEIR ENLISTMENT MEANS THAT EXACTLY HALF OF OTHELLO BEEM'S LARGE FAMILY WILL BE ENGAGED IN THE DEFENSE EFFORT.

BEEM HIMSELF IS A DEFENSE WORKER--AS A SPOT WELDER AT RYAN AERONAUTICAL COMPANY. BEFORE LEAVING FOR THEIR AIR FORCE TRAINING, CLAUDETTE AND DONNA EXPRESSED A DESIRE TO SEE THEIR DAD AT WORK, AND THEY WERE ACCOMPANIED TO THE PLANT YESTERDAY BY PFC POWELL.

THE OLDEST OF BEEM'S CHILDREN, MILTON, 26, OF HARTFORD, CONNECTICUT, IS AN AIR FORCE VETERAN NOW EMPLOYED IN AN AIRCRAFT ENGINE FACTORY. IT WAS HIS SERVICE IN THE AIR FORCE THAT GAVE CLAUDETTE AND DONNA THE IDEA THEY'D LIKE TO BE IN THAT BRANCH OF THE ARMED FORCES, THEY SAID YESTERDAY.

THEIR OLDER SISTER, MRS. BETTY LOU STAIRS, 24, OF LOWELL, MASSACHUSETTS, IS MARRIED AND HAS 5 CHILDREN. THE OTHER TWO CHILDREN ARE TOO YOUNG TO HELP UNCLE SAM. THEY'RE CAROLE, 14, AND RONALD, 11.

"THAT MAKES IT FOUR OUT OF EIGHT IN OUR FAMILY DOING SOME KIND OF DEFENSE WORK," REMARKS BEEM, WHO BROUGHT HIS FAMILY HERE LAST JULY FROM MARS HILL, MAINE, IN THE NORTHEASTERNMOST SECTION OF THE UNITED STATES, THREE MILES FROM THE



CANADIAN BORDER. SOON AFTER ARRIVAL, HE BECAME A SPOT WELDER OF JET ENGINE ASSEMBLIES AT RYAN.

CLAUDETTE HOPES TO DO SECRETARIAL WORK IN THE AIR FORCE, WHILE DONNA IS AIMING AT DUTIES AS A MEDICAL TECHNICIAN. BOTH HAVE BEEN OFFICE WORKERS IN SAN DIEGO IN RECENT MONTHS.

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OUT: 2-27-51  
TIME  
NEWS-WEEK  
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W/PTA 10.  
AVIATION WEEK  
WESTERN FLYING  
FORTNIGHT  
FORTUNE  
U.S. NEWS  
AERO DIGEST  
WESTERN INDUSTRY  
BUSINESS WEEK  
FACTORY MANAGEMEN

# NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

FACTORY MANAGEMEN

AIRCRAFT INDUSTRY'S "HOMING PIGEONS" RETURN FOR ANOTHER DEFENSE EMERGENCY

Aircraft workers are the homing pigeons of industry.

Between wars or national emergencies, they scatter to far-flung places and varied occupations.

Whenever the full-throated roar of America's aerial might swells in volume, the workers flock back to their old job stations.

They drop their peacetime activities and return to the rivet gun, the drop-hammer, the punch press, the drill, the lathe and the countless tools that forge America's unbeatable industrial might.

"It gets under your skin, and always stays a part of you, I guess," a grizzled machinist at Ryan Aeronautical Company remarked.

"For me, it was like coming back home."

At Ryan and other aircraft plants in this area, personnel managers harassed by the shortage of skilled manpower are thankful for these "homing pigeons". They comprise a quickly tapped pool of savvy labor which immediately swings into the tempo of defense production.

There's little of the lost time of in-plant training required of the raw newcomers on which increasing reliance must be placed in the industry's mushroom expansion, a repetition of the early days of World War II.

"It's though they had never left," says James W. Bunnell, Ryan Personnel Chief. "Many pick up their tools and go to work as if they were just returning from a weekend."



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Employment managers say they "see halos over the heads" of the "old-timers" when they appear for rehiring. "We're tickled pink to have them back," an executive remarked.

When World War II ended and aircraft orders were cancelled, numerous workers returned to their former homes all over the country and took jobs there. The yearning for San Diego was never quelled in many hearts, and in recent months the influx to their "adopted" home has resumed.

"We're beginning to get letters of inquiry from World War II workers, asking if there are jobs for them should they come back to San Diego," Bunnell declared. "Since the last war, they've been working on farms or in small businesses in all parts of the United States, and now they're anxious to return to the aircraft industry."

For example, Kenneth Matthews, a manifold assembler who was terminated at war's end, went back to Lake City, Iowa, where he worked in a welding shop and drilled wells until he heard that aircraft jobs again were available here.

"I always wanted to come back," he explained. "I never found a better place to work."

Lloyd Doerge, a welder, spent the years since World War II in and around La Crosse, Wisconsin on various welding jobs. He returned to San Diego recently. His simple explanation: "I enjoyed working here before, so I came back."

Many experienced the tribulations of being "one's own boss" after World War II. They went into business for themselves, now are satisfied with holding down jobs helpful to the defense effort.

Still others took prolonged vacations after the long period of intensive work under pressure.





Cecil R. Hamlet and his wife travelled for almost 4 years. He had started in the aircraft industry here in 1936, climbing to foreman of sheet metal fabrication ten years later.

"My wife and I wanted to see how other people lived," Hamlet explained. "We learned a lot, and discovered that San Diego is the best place to live and work."

Today Hamlet is handling pressure tests on the Boeing Fuselage sections being built by Ryan. He had to start out as an hourly paid worker, but "I'm sure battling to become a foreman again."

Those who left the industry of their own volition for "greener" fields often regret they lost their continuity of employment. "I wished I never had left," said W. A. "Bud" Meixner, an assistant foreman at Ryan. "I might be better off today."

The new emergency has also brought many old-timers out of the "mothballs" of retirement.

Observe, for instance, John J. "Red" Harrigan, one of San Diego's most colorful pioneer aviators.

"Red" entered naval aviation in 1916, flew for 9 years before returning to civilian life as a flight instructor and test pilot for Ryan. The depression of the early thirties separated him from his job, also. "Gold fever" sent him on a none-too-profitable flying expedition to the Yukon territory. Later he served as private pilot for a millionaire in Chicago. For three years he was Lindbergh Field Manager for the San Diego Harbor Department, until the Navy called him back to active duty in the last war.

After the war, he relaxed in his home in Harbison Canyon for several years.

"But I got tired of lying around doing nothing, and there was just one place



for me to do any good when this new emergency came up." he said. "That was in the aircraft industry."

Today, at 63, "Red" Harrigan happily drives 60 miles each day to and from work as an inspector at Ryan.

Or, take the case of Fred Magula, who has spent most of his adult lifetime in the aircraft industry, except for the between-wars vagaries of employment. Fred was one of the small gang of enthusiastic Ryan workers who labored day and night to finish Lindbergh's "Spirit of St. Louis". Later he went to St. Louis to work for Lindbergh's backers. Eventually he wound up in Detroit, out of a job when the depression hit in 1932. He returned to California, entered the baking business with his brother in Fresno.

But the "homing pigeon" instinct asserted itself in 1935, and when business picked up at Ryan, he returned, became sheet metal foreman. For ten uninterrupted years, Fred remained in the aircraft industry, until the postwar production cut-backs which displaced tens of thousands of workers.

During the years of uneasy peace, he operated a service station in Chula Vista. When the Korean War ended the aircraft industry's starvation diet, he made a bee-line for his old haunts. Today Fred Magula is happily pounding away as a mechanic on the giant fuselage sections produced by Ryan for the C-97 Boeing transport.

Throughout San Diego's aircraft industry, reunions are taking place daily.

"You're back too!" is the cry being heard as the "homing pigeons" come home to roost.



**NEWS BUREAU • RYAN AERONAUTICAL COMPANY**

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

2/27/51

Fifty officers of the Air Force, the Army, the Navy, the Royal Air Force and the Royal Canadian Air Force will "go to school" all day Friday at Ryan Aeronautical Company.

The officers, students in the Armed Services Guided Missiles School at Ft. Bliss, Tex., are attending classes at various aircraft plants as the final phase of several months' instruction on guided missiles' research and development.

Thirteen Ryan engineers will conduct the one-day course here, outlining findings in the several years' guided missiles work performed by the company. James E. Glines, special projects engineer, and R. W. Shaver, project engineer, will coordinate Friday's program, which will include a plant tour, inspection and limited demonstrations of secret projects, and motion pictures.

Lt. Col. Jose E. Olivares, an artillery officer, is the senior officer of the visiting group.



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12/18/58

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To Local papers  
3-1-51

THERE'S AT LEAST ONE PHASE OF THE BOOMING AIRCRAFT INDUSTRY IN WHICH A HANDICAP IS A BLESSING.

STEP INTO THE ROOM WHERE PLANISHING MACHINES ARE GOING FULL BLAST, AND YOU'LL LEARN WHY.

OF ALL FACTORY SOUNDS, THOSE EMANATING FROM THE PLANISHING DEPARTMENT ARE AMONG THE MOST JARRING AND PENETRATING. A PLANISHING MACHINE IS REALLY A SMALL PNEUMATIC AIR HAMMER. YOU KNOW THE EARTH-SHAKING NOISE FROM A JACKHAMMER DRILLING HOLES IN PAVEMENT. CONSIDER, THEN, SEVERAL MINIATURE JACKHAMMERS, EACH BEATING THOUSANDS OF STROKES A MINUTE ON PIECES OF STAINLESS STEEL. NO AMOUNT OF SOUND CONTROL, THROUGH USE OF ACOUSTIC MATERIALS, CAN ABSORB THIS PIERCING INDUSTRIAL CLAMOR.

RECRUITING OF PLANISHING MACHINE OPERATORS PROVED A DIFFICULT TASK UNTIL SOMEONE GOT THE BRIGHT IDEA:

"WHY NOT HIRE DEAF MUTES FOR THIS JOB?"

AT RYAN AERONAUTICAL COMPANY, THE EXPERIMENT HAS BECOME ESTABLISHED PRACTICE. EMPLOYMENT TURNOVER HAS DIMINISHED ALMOST TO THE VANISHING POINT. BOTH THE COMPANY AND THE DEAF MUTES ARE HAPPY, AS A HANDICAP HAS BECOME NOT ONLY AN ADVANTAGE BUT A VIRTUAL REQUIREMENT FOR A SPECIALIZED TASK.

THUS, IN SAN DIEGO'S DEFENSE EFFORT, WITH MANPOWER AT A PREMIUM, DEAF MUTES RELEASE PERSONS WITH NORMAL HEARING AND SPEAKING ABILITY FOR OTHER JOBS TO WHICH THEY ARE BETTER SUITED.

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PLANISHING IS AN ESSENTIAL OPERATION TO REMOVE MINUTE "WRINKLES" THAT MAY REMAIN IN PARTS FORMED BY THE DROP-HAMMER METHOD. IN AN EXHAUST MANIFOLD SYSTEM THROUGH WHICH PASS EXTREMELY HOT GASES, OF TEMPERATURES AS HIGH AS 1900<sup>0</sup>F., A SMALL "WRINKLE" CAN RESULT IN A "HOT SPOT". INTERRUPTION OF THE SMOOTH FLOW OF THE GAS WILL WEAR OUT THE EXHAUST SECTION AT THAT SPOT AT A FASTER THAN NORMAL RATE.

APPROXIMATELY 30 TO 35 PERCENT OF THE EXHAUST SYSTEM PARTS NEED PLANISHING, AND THE HAMMERING IS INCESSANT IN THE "BUMP SHED", THE AIRCRAFT COLLOQUIALISM FOR THAT NOISY PORTION OF THE PLANT. IT'S A SKILLED JOB IN WHICH AIR PRESSURE MUST BE CAREFULLY OBSERVED AT ALL TIMES, AND THE OPERATOR MUST DECIDE ON THE CORRECT "DOLLY" TO PLACE INTO THE HAMMER, DEPENDING ON THE PART'S CURVATURE.

ONE OF THE OLDEST FACTORY WORKERS IN SAN DIEGO IS A DEAF MUTE. HE IS S. M. BREESE, 69, WHO HAS BEEN IN THE RYAN PLANISHING DEPARTMENT FOR 9 YEARS. A DEAF MUTE SINCE BIRTH, HE HAS BEEN IN INDUSTRIAL WORK MOST OF HIS LIFE. FOR 37 YEARS HE WAS EMPLOYED AT THE AUTOMATIC ELECTRIC COMPANY PLANT IN CHICAGO, ILLINOIS.

WHEN HE RETIRED IN 1939, HE CAME TO SAN DIEGO AND THE WEATHER AND SCENERY CONVINCED HIM HE OUGHT TO SETTLE DOWN HERE.

"I WAS RESTLESS," BREESE WRITES, "AND FIRST I WENT TO WORK AS A DISHWASHER IN A HOTEL. THEN I GOT THIS JOB AT RYAN, AND I LEARNED FAST. I LIKE IT AND I WANT TO STICK TO IT AS LONG AS I LIVE. EVERYBODY IS FRIENDLY AND UNDERSTANDING. I AM PROUD OF MY STEADY POSITION."

MRS. PAULINE STICHT, 62, IS ANOTHER "OLD-TIMER" DEAF MUTE AT RYAN. SHE HAS BEEN A PLANISH OPERATOR SINCE 1943, AND TREASURES HER RECORD OF DOING ESSENTIAL TASKS IN BOTH WORLD WARS I AND II. IN THE FIRST CONFLICT, SHE WAS EMPLOYED IN A LOCAL BLUEPRINT CONCERN DOING WORK FOR THE NAVY.

THESE THINGS ARE ALL PART OF THE SAME WHOLE AND WE MUST NOT FORGET THIS

AND WE MUST NOT LET OURSELVES BE DIVIDED BY THESE THINGS

WE MUST NOT LET OURSELVES BE DIVIDED BY THESE THINGS

WE MUST NOT LET OURSELVES BE DIVIDED BY THESE THINGS

WE MUST NOT LET OURSELVES BE DIVIDED BY THESE THINGS

WE MUST NOT LET OURSELVES BE DIVIDED BY THESE THINGS

"I WORKED 10 HOURS A DAY, 7 DAYS A WEEK," SHE RECALLS. "THERE WERE NO INCOME TAXES, AND NO RATIONING IN THOSE DAYS."

HER SCHOOLING WAS EXCELLENT. SHE ATTENDED A CATHOLIC CONVENT IN CHICAGO, AND JAMES MILLIKIN UNIVERSITY IN DECATUR, ILLINOIS, WHERE SHE TOOK A FINE ARTS COURSE AND MANAGED TO WIN A FENCING CHAMPIONSHIP. "I NEVER ATTENDED A SCHOOL FOR THE DEAF," SHE STATES IN PERFECT PENMANSHIP.

AN UNUSUAL COUPLE ARE F. L. PUCKETT, 51, AND HIS WIFE, JOSIE, 26, BOTH DEAF MUTES. THEY ARE EMPLOYED ON DIFFERENT SHIFTS TO CIRCUMVENT THE NEED OF HIRING A BABY SITTER. THEIR 15-MONTH OLD DAUGHTER HAS NORMAL HEARING AND VOICE. MRS. PUCKETT, ON THE DAY SHIFT, COMES HOME IN TIME TO RELIEVE HER HUSBAND OF THE CHORES OF CARING FOR THE YOUNGSTER, AND HE PROCEEDS TO THE PLANT FOR THE NIGHT SHIFT.

FOREMEN AND ASSISTANT FOREMEN WHO SUPERVISE THE DEAF MUTES' WORK HAVE BECOME QUITE ADEPT AT THE SIGN LANGUAGES NEEDED FOR COMMUNICATION ABOUT THEIR TASKS.

"WE DON'T HAVE TO WRITE DOWN OUR INSTRUCTIONS VERY OFTEN ANY MORE," SAYS ADOLPH BOLGER, FORMING AND PROCESSING FOREMAN AT RYAN. "THESE DEAF MUTES ARE QUITE ALERT AND CATCH ON QUICKLY. AND THEY DON'T WANT SPECIAL FAVORS BECAUSE OF THEIR HANDICAP."

SOMETIMES A DEAF MUTE SHOWS ABILITIES IN OTHER TYPES OF WORK. A CASE IN POINT IS THAT OF J. B. LLOYD, A 9-YEAR VETERAN OF RYAN'S PLANISHING DEPARTMENT, WHO HAS BEEN TRANSFERRED TO THE LESS NOISY JOB OF BANDSAW OPERATOR.

TO A PERSON WITH NORMAL HEARING, SUCH A MOVE MIGHT BE CONSIDERED WELCOME FROM THE STANDPOINT OF LESS WEAR AND TEAR ON THE EARDRUMS.

BUT IN THE QUIET WORLD OF DEAF-MUTE LLOYD, THE CHANGE MEANT BUT ONE THING. A HANDICAPPED PERSON HAD BEEN ACCEPTED ON HIS OWN MERITS AND GIVEN GREATER RESPONSIBILITY IN A NATIONAL DEFENSE INDUSTRY.

The first part of the report is devoted to a general survey of the situation in the country.

The second part is devoted to a detailed study of the various aspects of the problem.

The third part is devoted to a study of the various aspects of the problem.

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The twenty-fourth part is devoted to a study of the various aspects of the problem.

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FOR A.M. RELEASE  
FRIDAY, MARCH 2, 1951

# NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

MAILED WITH REPORT: 3-1-51

## PROFITS OF RYAN AERONAUTICAL

INCREASE TO \$635,165 IN 1950

LOCAL PAPERS  
AVIATION MAGS 1 & 2  
FINANCIAL RED & YELLOW  
NEWSPAPERS RED MISC. RED  
WIRE SERVICES (REPORT  
FREE LANCE RED ONLY TO  
MAGS/GENERAL PUB.REL.)

EARNINGS OF \$635,165, REPRESENTING AN INCREASE OF 77 PERCENT OVER THE \$358,052 NET PROFIT FOR 1949, WERE REPORTED TODAY BY RYAN AERONAUTICAL COMPANY'S PRESIDENT, T. CLAUDE RYAN, IN HIS ANNUAL REPORT TO STOCKHOLDERS COVERING THE 12 MONTHS ENDED OCTOBER 31, 1950.

PER SHARE EARNINGS WERE \$1.61 IN 1950 COMPARED WITH 91 CENTS FOR FISCAL 1949.

"THE OVERALL ACCOMPLISHMENTS AND RESULTS FOR THE YEAR MARK IT AS A SUCCESSFUL ONE," RYAN SAID. "NET WORTH OF THE COMPANY PASSED THE \$5,000,000 MARK AND, AS OF THE CLOSE OF THE FISCAL YEAR, THE BOOK VALUE STOOD AT AN ALL-TIME HIGH OF \$12.72 PER NET OUTSTANDING SHARE."

GROSS REVENUE FOR 1950 WAS \$12,512,851. THE SALES OF THE COMPANY'S TWO OPERATING DIVISIONS AND COMPARISONS WITH 1949 ARE SHOWN BELOW:

	1950	1949
METAL PRODUCTS DIVISION	\$ 6,863,962	\$ 6,277,743
AIRPLANE DIVISION	<u>5,648,889</u>	<u>8,736,821</u>
TOTAL SALES	\$12,512,851	\$15,014,564

AS OF JANUARY 31, THE BACKLOG OF BUSINESS BOOKED AHEAD EXCEEDED \$29,000,000, REFLECTING THE EFFECT OF THE NEW DEFENSE PROGRAM. "EXHAUST SYSTEMS BUSINESS," RYAN SAID, "THOUGH REGULARLY REPRESENTING A SIZEABLE PORTION OF BUSINESS DONE, CONSISTENTLY REPRESENTS ONLY A SMALL PORTION OF BACKLOG FIGURES, SINCE ORDERS ARE NORMALLY RECEIVED ONLY A FEW MONTHS IN ADVANCE OF DELIVERIES.

MEMORANDUM FOR THE DIRECTOR

DATE: 10/15/54

TO: DIRECTOR

SUBJECT: [Illegible]

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[Illegible]

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## AIRPLANE DIVISION

"A NEW MILITARY MODEL OF THE RYAN NAVION FOUR-PLACE PLANE HAS BEEN DEMONSTRATED TO THE AIR FORCE, ARMY AND NAVY. A PROPOSAL AND BID FOR A QUANTITY ORDER HAS RECENTLY BEEN MADE TO THE U. S. AIR FORCE IN CONNECTION WITH A COMPETITION HELD BY IT BUT RESULTS OF THAT EVALUATION ARE NOT YET KNOWN." PRODUCTION OF COMMERCIAL NAVION MODELS IS BEING LIMITED IN 1951 TO GIVE PRIORITY TO IMPORTANT MILITARY CONTRACTS.

IN THE COMPANY'S AIRPLANE DIVISION, A MAJOR PROJECT IS THE MANUFACTURE OF LARGE FUSELAGE SECTIONS FOR BOEING C-97 STRATOFREIGHTER MILITARY TRANSPORTS. THE PROGRAM IS ON AN ACCELERATED PRODUCTION BASIS WHICH IS PLANNED TO CONTINUE INTO 1952. CARGO FLOORS AND FLOOR BEAMS FOR THE C-97 ARE ALSO IN PRODUCTION AND, IN ADDITION, THE COMPANY HAS NEW CONTRACTS FOR OTHER COMPONENTS FOR THIS SAME TRANSPORT PLANE.

A NEW RYAN PRODUCT DEVELOPED DURING THE YEAR AND NOW IN VOLUME PRODUCTION IS A HUGE EXTERNAL FUEL TANK FOR MILITARY PLANES. THIS IS A NEW FIELD FOR THE COMPANY AND ONE WHICH RYAN REPORTED AS HAVING INTERESTING POSSIBILITIES FOR FUTURE DEVELOPMENT. A NUMBER OF OTHER TYPES OF AIRFRAME COMPONENTS HAVE RECENTLY BEEN CONTRACTED FOR, AND THE COMPANY IS NEGOTIATING WITH MANUFACTURERS ON STILL OTHER ITEMS.

IN THE AIRCRAFT RESEARCH AND DEVELOPMENT FIELD, RYAN IS CONTINUING MANUFACTURE OF ITS XQ-2 JET PROPELLED PILOTLESS TARGET PLANE UNDER JOINT AIR FORCE-NAVY SPONSORSHIP. "THE COMPANY IS PERFORMING THE IMPORTANT ELECTRONICS PHASE OF THIS PROJECT AS WELL AS THE BASIC AIRPLANE DESIGN," RYAN SAID. "IT IS ANTICIPATED THAT PRODUCTION CONTRACTS WILL RESULT FOR THIS ADVANCED TYPE AIRPLANE. OTHER IMPORTANT DESIGN AND DEVELOPMENT PROJECTS, WHICH CANNOT BE IDENTIFIED AND DESCRIBED DUE TO MILITARY SECURITY REGULATIONS, ARE ON CONTRACT AND IN PROGRESS WITH THE AIR FORCE AND NAVY.

MEMORANDUM

Reference is made to the memorandum dated 10/15/54 and the report of the Special Agent in Charge, New York, dated 10/15/54, captioned as above.

The Bureau is advised that the New York Office is currently conducting an investigation of the activities of the Communist Party, USA, in the New York area.

It is noted that the New York Office has advised that the activities of the Communist Party, USA, in the New York area, are being conducted in a clandestine manner.

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### METAL PRODUCTS DIVISION

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THE ANNUAL REPORT DISCLOSED THAT RYAN IS NOW BUILDING EXHAUST SYSTEMS OF MILITARY COMBAT TANK ENGINES AS WELL AS FOR USE ON AIRPLANES. IT WAS ALSO STATED THAT THE LEADING ENGINE MANUFACTURERS AS WELL AS AIRCRAFT MANUFACTURERS ARE NOW CUSTOMERS FOR THE COMPANY'S EXHAUST SYSTEMS.

IN DISCUSSING JET ENGINE BUSINESS, RYAN NOTED THAT "THE VOLUME OF THIS TYPE WORK NOW SCHEDULED IS SUBSTANTIALLY LARGER THAN IN THE RECENT PAST. ROCKET TYPE POWER UNITS AND GUIDED MISSILE COMPONENTS WERE ALSO AMONG THE COMPANY'S PRODUCTS DURING THE YEAR AND ARE CONTINUING IN PRODUCTION."

UNIVERSITY OF TORONTO

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PROFITS OF RYAN AERONAUTICAL

INCREASE TO \$635,165 IN 1950

EARNINGS OF \$635,165, REPRESENTING AN INCREASE OF 77 PERCENT OVER THE \$358,052 NET PROFIT FOR 1949, WERE REPORTED TODAY BY RYAN AERONAUTICAL COMPANY'S PRESIDENT, T. CLAUDE RYAN, IN HIS ANNUAL REPORT TO STOCKHOLDERS COVERING THE 12 MONTHS ENDED OCTOBER 31, 1950.

PER SHARE EARNINGS WERE \$1.61 IN 1950 COMPARED WITH 91 CENTS FOR FISCAL 1949.

"THE OVERALL ACCOMPLISHMENTS AND RESULTS FOR THE YEAR MARK IT AS A SUCCESSFUL ONE," RYAN SAID. "NET WORTH OF THE COMPANY PASSED THE \$5,000,000 MARK AND, AS OF THE CLOSE OF THE FISCAL YEAR, THE BOOK VALUE STOOD AT AN ALL-TIME HIGH OF \$12.72 PER NET OUTSTANDING SHARE."

GROSS REVENUE FOR 1950 WAS \$12,512,851. THE SALES OF THE COMPANY'S TWO OPERATING DIVISION AND COMPARISONS WITH 1949 ARE SHOWN BELOW:

	1950	1949
METAL PRODUCTS DIVISION	\$ 6,863,962	\$ 6,277,743
AIRPLANE DIVISION	<u>5,648,889</u>	<u>8,736,821</u>
TOTAL SALES	\$12,512,851	\$15,014,564

AS OF JANUARY 31, THE BACKLOG OF BUSINESS BOOKED AHEAD EXCEEDED \$29,000,000, REFLECTING THE EFFECT OF THE NEW DEFENSE PROGRAM. "EXHAUST SYSTEMS BUSINESS," RYAN SAID, "THOUGH REGULARLY REPRESENTING A SIZEABLE PORTION OF BUSINESS DONE, CONSISTENTLY REPRESENTS ONLY A SMALL PORTION OF BACKLOG FIGURES, SINCE ORDERS ARE NORMALLY RECEIVED ONLY A FEW MONTHS IN ADVANCE OF DELIVERIES.

PROFITS OF RYAN AERONAUTICAL

INCREASE TO \$2,115,881 IN 1950

Earnings of \$2,115,881, representing an increase of 77 percent over the \$1,200,000 net profit for 1949, were reported today by Ryan Aeronautical Company's president, T. Claude Ryan, in his annual report to stockholders covering the 12 months ended October 31, 1950.

Per share earnings were \$1.07 in 1950 compared with 61 cents for fiscal

1949.

"The annual accounting report also reflects for the year mark it as a successful one," Ryan said. "Net worth of the company passed the \$2,000,000 mark and as of the close of the fiscal year, the book value stood at an all-time high of \$12.75 per net outstanding share."

Gross revenue for 1950 was \$12,715,071. The sales of the company's two

operating divisions and competitors with 1949 are shown below:

	1950	1949
Major Products Division	\$ 6,303,252	\$ 6,277,743
Aircraft Division	<u>2,288,881</u>	<u>3,732,821</u>
TOTAL SALES	\$12,715,881	\$12,010,564

as of January 31, the backlog of business booked ahead exceeded \$2,000,000, reflecting the effect of the new maintenance program. "Forecast systems business," Ryan said, "remains a highly profitable portion of business and consistently accounts for a small portion of earnings figures, since orders are normally received only a few months in advance of deliveries."

## AIRPLANE DIVISION

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IN THE AIRCRAFT RESEARCH AND DEVELOPMENT FIELD, RYAN IS CONTINUING MANUFACTURE OF ITS XQ-2 JET PROPELLED PILOTLESS TARGET PLANE UNDER JOINT AIR FORCE-NAVY SPONSORSHIP. "THE COMPANY IS PERFORMING THE IMPORTANT ELECTRONICS PHASE OF THIS PROJECT AS WELL AS THE BASIC AIRPLANE DESIGN," RYAN SAID. "IT IS ANTICIPATED THAT PRODUCTION CONTRACTS WILL RESULT FOR THIS ADVANCED TYPE AIRPLANE. OTHER IMPORTANT DESIGN AND DEVELOPMENT PROJECTS, WHICH CANNOT BE IDENTIFIED AND DESCRIBED DUE TO MILITARY SECURITY REGULATIONS, ARE ON CONTRACT AND IN PROGRESS WITH THE AIR FORCE AND NAVY.

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MAILING OUT: 3-6-51  
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AVIATION MAGS 1 & 2  
TECHNICAL RED

## NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

PHOTO USED TO HIGHLIGHT

RYAN CUSTOMER SERVICE

TO GRAPHICALLY SHOW THE SERVICE RYAN AERONAUTICAL COMPANY PLACES AT THE DISPOSAL OF CUSTOMERS, ITS METAL PRODUCTS DIVISION RECENTLY ARRANGED THE ATTACHED SPECIALLY POSED PICTURE OF KEY PERSONNEL AND THE PRODUCTS CURRENTLY BEING BUILT.

HOWEVER DRAMATIC IN CONCEPT, THIS PHOTO FAILS TO CONVEY THE TOTAL IMPACT THAT EXPERIENCED SUB-CONTRACTORS LIKE RYAN CAN BRING TO BEAR ON THE PROBLEMS WHICH ARISE FROM DAY TO DAY IN CONNECTION WITH WORK BEING DONE FOR PRIME CONTRACTORS.

RYAN'S CUSTOMER SERVICE DIVISION PROVIDES LIAISON BEFORE, DURING AND AFTER PRODUCTION OF COMPONENTS FOR OTHER MANUFACTURERS. IT IS HEADED BY SAM C. BREDER WHO APPEARS IN THE FOREGROUND OF THIS HUMAN "ORGANIZATION CHART."

IN THE ROW BEHIND BREDER ARE FIELD REPRESENTATIVES, AT LEFT, WITH OFFICES IN DAYTON, NEW YORK AND SEATTLE, WHO PROVIDE SALES ENGINEERING CONSULTATION BEFORE PRODUCTION; AND ROVING SERVICE REPRESENTATIVES, AT RIGHT, WHO SEE THAT CUSTOMERS RECEIVE FOLLOW-THROUGH SERVICE AFTER PRODUCTION. THE FOUR COORDINATORS IN THE CENTER ROW LOOK AFTER THE STACKS OF PAPER WORK WHICH KEEP THE JOBS RUNNING SMOOTHLY DURING PRODUCTION.

THE GROUP OF SEVEN MEN AT THE LEFT IN THE FOURTH ROW ARE THE COMPANY'S TOP MANUFACTURING ENGINEERS, PRODUCTION MANAGERS AND CHIEF INSPECTOR WHO ARE AVAILABLE TO PRIME CONTRACTORS AT EITHER THE CUSTOMERS' PLANTS OR THE RYAN FACTORY FOR THE EXCHANGE OF KNOW-HOW; TO ASSURE PRECISION WORKMANSHIP AND QUALITY AT EVERY STEP; TO BREAK BOTTLENECKS AND, IN GENERAL, GET THE JOB DONE.



TACKLING THE COMPLEX PROBLEMS OF THE SCIENTIFIC LABORATORY, AND WORKING IN CLOSE HARMONY WITH THE TECHNICAL EXPERTS OF ITS CUSTOMERS, ARE KEY MEMBERS OF RYAN'S LABORATORY STAFF (RIGHT, FOURTH ROW) WHICH INCLUDES METALLURGISTS, CHEMISTS, WELDING TECHNICIANS AND OTHER SPECIALISTS WHO CAN UNRAVEL THE MYSTERIES OF PRESENT-DAY INDUSTRIAL SCIENCE.

IN THE FIELD OF ENGINEERING, THE COMPANY PROVIDES LIAISON ENGINEERS (BACK ROW) ON CUSTOMER PROJECTS WITH LONG BACKGROUND AND SPECIAL KNOWLEDGE OF JET ENGINES, AIRFRAME COMPONENTS AND EXHAUST SYSTEMS.

THIS GROUP OF 26 KEY MEN IS POSED AGAINST A BACKGROUND OF THE PRODUCTS RYAN'S METAL PRODUCTS DIVISION NOW MANUFACTURES FOR OTHER COMPANIES. JET ENGINE PARTS, FAR LEFT, INCLUDE TAIL CONES FOR GENERAL ELECTRIC ENGINES AND TAIL PIPES FOR JET PODS FOR B-47 AND B-36 BOMBERS. TYPICAL AIRFRAME COMPONENTS, CENTER, ARE AFT FUSELAGE SECTIONS OF BOEING C-97 STRATOFREIGHTERS, WING FLAPS FOR B-36 BOMBERS AND HUGE EXTERNAL FUEL TANKS TO BE MOUNTED ON THE WINGS OF MILITARY PLANES. AT RIGHT ARE VARIOUS ASSEMBLIES FOR THE EXHAUST SYSTEMS RYAN BUILDS FOR COMMERCIAL TRANSPORT AND MILITARY PLANES.

IN ADDITION TO METAL PRODUCTS BUILT ON SUB-CONTRACT, THE COMPANY IS ALSO A PRIME AIRFRAME MANUFACTURER DOING WORK FOR THE MILITARY SERVICES ON RYAN PILOTLESS JET PROPELLED PLANES, GUIDED MISSILES AND IMPORTANT RESEARCH IN RELATED FIELDS.

3-2-51W



*For  
San Diego  
Chamber of Commerce  
Publication*

THIS IS AN UNUSUAL "HUMAN ORGANIZATION CHART" OF JUST ONE OF THE MANY ACTIVITIES OF A COMPLEX INDUSTRY SUCH AS AN AIRCRAFT PLANT. IT IS A GRAPHIC ILLUSTRATION OF THE CUSTOMER SERVICE LIAISON AT RYAN AERONAUTICAL COMPANY WITH OTHER MANUFACTURERS FOR WHOM THE SAN DIEGO FIRM PRODUCES MAJOR COMPONENTS. SUCH LIAISON MUST BE PROVIDED BEFORE, DURING AND AFTER PRODUCTION.

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FOUR MEN IN CENTER ROW ARE COORDINATORS WHO KEEP THE JOBS RUNNING SMOOTHLY DURING PRODUCTION. SEVEN MEN AT FAR LEFT BEHIND THEM ARE THE TOP MANUFACTURING ENGINEERS, PRODUCTION MANAGERS AND CHIEF INSPECTOR. FOUR MEN AT RIGHT IN FOURTH

THE FIRST PART OF THE HISTORY OF THE  
LIFE OF THE GREAT KING CHARLES THE FIRST  
BY JOHN BURNET  
IN TWO VOLUMES  
THE SECOND PART

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THE UNIVERSITY OF CHICAGO  
DEPARTMENT OF CHEMISTRY  
5708 SOUTH CAMPUS DRIVE  
CHICAGO, ILLINOIS 60637

[The remainder of the page contains extremely faint, illegible text, likely bleed-through from the reverse side of the document.]



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THE UNIVERSITY OF CHICAGO  
DEPARTMENT OF CHEMISTRY  
58 CHEMISTRY BUILDING  
CHICAGO, ILLINOIS 60637

TO THE EDITOR:

I have the honor to acknowledge the receipt of your letter of the 10th of this month regarding the matter mentioned therein.

The information you have provided is being reviewed and a response will be sent to you as soon as possible.

Very truly yours,  
[Signature]



McSURELY - AVIATION WEEK  
STOCKWELL - AVIATION AGE  
HAMLIN - AERO DIGEST  
PARRISH - AMERICAN AVIATION  
RHODES - WESTERN FLYING

## NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

MAILING OUT: 3-7-51  
(WITH PIX)

"POSITION IS EVERYTHING. . ."

THE OBSERVATION THAT "POSITION IS EVERYTHING IN LIFE" APPLIES PARTICULARLY TO JOB EFFICIENCY IN INDUSTRY. WORKERS WHO MUST TWIST THEMSELVES INTO UNCOMFORTABLE POSITIONS TO GET A TASK DONE AREN'T LIKELY TO TURN OUT THE BEST POSSIBLE PRODUCT.

THIS HAS BEEN RECOGNIZED AT RYAN AERONAUTICAL COMPANY, WHERE INCREASING QUANTITIES OF POSITIONING EQUIPMENT HAVE BEEN INSTALLED TO CONSERVE MANPOWER AND IMPROVE OUTPUT OF ARC WELDERS.

IN THE FIRST PHASES OF THIS PROGRAM, AS APPLIED TO MANUFACTURE OF RYAN EXHAUST SYSTEMS, WORK POSITIONING TABLES HAVE (1) PROVIDED CLOSER TOLERANCES IN THE FINISHED PRODUCT; (2) ENABLED A CONTINUITY OF OPERATIONS ON ONE TABLE, THUS SAVING TIME, ENERGY AND FACTORY SPACE; AND (3) IMPROVED THE QUALITY OF THE WELD BECAUSE THE OPERATOR IS CONSTANTLY WORKING IN AN ADVANTAGEOUS POSITION.

A WELDER WORKING IN A "DOWN-HAND" POSITION CAN USE A MUCH HEAVIER ROD, CONTROL THE FLOW OF METAL TO A GREATER DEGREE, AND CAN COMPLETE WITH ONE "PASS" WHAT WOULD REQUIRE TWO OR THREE IN POSITIONS AT AWKWARD ANGLES.

UTILIZATION OF THE STANDARD RANSOME WELDING POSITIONER HAS "STREAMLINED" THE METHOD OF ASSEMBLING AND WELDING. SUCH FITTINGS AS BEADED SLIP JOINT FLANGES, HANGER BRACKETS, FIRE-SEAL COLLARS, ETC., ON LARGE MANIFOLD SECTIONS CAN NOW BE WELDED IN THE CORRECT DIMENSIONAL POSITION.

A STANDARD JIG TABLE TOP, WITH LEGS REMOVED, IS MOUNTED ON THE POSITIONER. WITH SOME MODIFICATION OF PRESENT TOOLING, FITTINGS CAN NOW BE INSTALLED ON A SUB-ASSEMBLY TO EXACT PRINT TOLERANCES. THE COMPLETE JOB OF WELDING CAN BE

WOMEN'S SUFFRAGE PARTY

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PERFORMED BY TILTING THE TABLE TO VARIOUS ANGLES FOR THE MOST ADVANTAGEOUS POSITIONS, THUS PROVIDING TRUE JIG LOCATIONS AND ASSEMBLIES WHICH ARE NOT WARPED OUT OF SHAPE FROM WELDING.

UNDER THE OLD METHOD, CONSIDERABLE HANDWORK WAS NEEDED TO RESTORE FITTINGS TO PRINT DIMENSIONS BECAUSE OF WARPAGE IN THE WELDING OPERATION. THE NEW SYSTEM HAS REDUCED HANDWORKING TO THE ABSOLUTE MINIMUM.

"TWO IMPORTANT ITEMS ARE ELIMINATED," RAY ORTIZ, SUPERINTENDENT OF THE MANIFOLD AND FABRICATION DIVISIONS, POINTS OUT. "ONE IS HANDWORK. WE AVOID THE WARPAGE RISKED WHEN WELDING IS DONE OUTSIDE A JIG. THE OTHER ITEM IS A HIGHER STANDARD OF QUALITY, ENABLING THE FINISHED ARTICLE TO PASS INSPECTION MORE READILY."

TWO TYPES OF POSITIONERS HAVE BEEN INSTALLED IN THE RYAN PLANT. THE LARGER TABLES HAVE A CAPACITY OF 2500 POUNDS, WHILE THE SMALLER POSITIONERS, USED FOR SUCH PARTS AS PORT NIPPLES AND SHAFTS, HANDLE UP TO 100 POUNDS. THE TABLES CAN ROTATE 360 DEGREES AND CAN BE TILTED 90 DEGREES IN ANY DIRECTION.

"THIS IS THE TYPE OF EQUIPMENT THAT PAYS FOR ITSELF IN A SHORT TIME, THROUGH AN IMPROVED PRODUCT AND BETTER WORKING CONDITIONS FOR WELDERS," ORTIZ REMARKS.

The first part of the document discusses the general principles of the law of contract, which are based on the idea of freedom of contract. This means that individuals are free to enter into agreements with others, provided that the agreements are made voluntarily and without any legal impediment. The law of contract is designed to enforce these agreements and to provide a remedy in the event of a breach.

The second part of the document deals with the formation of a contract. A contract is formed when two or more parties agree to do something or to refrain from doing something. The agreement must be supported by consideration, which is something of value that is exchanged between the parties. The agreement must also be made with the intention of creating legal relations.

The third part of the document discusses the performance of a contract. A contract is said to be performed when the parties have done what they agreed to do. If a party fails to perform its obligations under a contract, it is in breach of contract. The law provides remedies for breach of contract, including damages and specific performance.

The fourth part of the document deals with the discharge of a contract. A contract is discharged when the parties are no longer bound by its terms. This can happen in a number of ways, including by agreement, by operation of law, or by frustration.

The fifth part of the document discusses the assignment of a contract. This is the process by which a party transfers its rights and obligations under a contract to another party. Assignment is subject to certain restrictions, and the assignee must take the contract as it is.

The sixth part of the document deals with the novation of a contract. This is the process by which a contract is replaced by a new contract. Novation requires the consent of all parties to the original contract and the parties to the new contract.

The seventh part of the document discusses the rescission of a contract. This is the process by which a contract is set aside. Rescission is available in certain circumstances, such as where there is a mistake, misrepresentation, or duress.

The eighth part of the document deals with the rectification of a contract. This is the process by which a contract is corrected where there has been a clerical error or a mistake in the expression of the parties' intentions.

The ninth part of the document discusses the variation of a contract. This is the process by which the terms of a contract are changed. Variation requires the consent of all parties to the original contract.

The tenth part of the document deals with the assignment of a contract. This is the process by which a party transfers its rights and obligations under a contract to another party. Assignment is subject to certain restrictions, and the assignee must take the contract as it is.





SKYWAYS  
WESTERN FLYING  
FORTUNE  
MODERN INDUSTRY  
AVIATION WEEK

FORTNIGHT  
AIA  
PATHFINDER

MAILING OUT: 3-12-51 (PIX)

WESTERN INDUSTRY  
WESTERN MACHINERY & STEEL WORLD  
U.S. NEWS  
AVIATION AGE

# NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

## DEAF MUTES IN DEFENSE WORK

### RELEASE NEEDED MANPOWER

THERE'S AT LEAST ONE PHASE OF THE BOOMING AIRCRAFT INDUSTRY IN WHICH A HANDICAP IS A BLESSING.

STEP INTO THE ROOM WHERE PLANISHING MACHINES ARE GOING FULL BLAST, AND YOU'LL LEARN WHY.

OF ALL FACTORY SOUNDS, THOSE EMANATING FROM THE PLANISHING DEPARTMENT ARE AMONG THE MOST JARRING AND PENETRATING. A PLANISHING MACHINE IS REALLY A SMALL PNEUMATIC AIR HAMMER. YOU KNOW THE EARTH-SHAKING NOISE FROM A JACKHAMMER DRILLING HOLES IN PAVEMENT. CONSIDER, THEN, SEVERAL MINIATURE JACKHAMMERS, EACH BEATING THOUSANDS OF STROKES A MINUTE ON PIECES OF STAINLESS STEEL. NO AMOUNT OF SOUND CONTROL, THROUGH USE OF ACOUSTIC MATERIALS, CAN ABSORB THIS PIERCING INDUSTRIAL CLAMOR.

RECRUITING OF PLANISHING MACHINE OPERATORS PROVED A DIFFICULT TASK UNTIL SOMEONE GOT THE BRIGHT IDEA:

"WHY NOT HIRE DEAF MUTES FOR THIS JOB?"

AT RYAN AERONAUTICAL COMPANY, THE EXPERIMENT HAS BECOME ESTABLISHED PRACTICE. EMPLOYMENT TURNOVER HAS DIMINISHED ALMOST TO THE VANISHING POINT. BOTH THE COMPANY AND THE DEAF MUTES ARE HAPPY, AS A HANDICAP HAS BECOME NOT ONLY AN ADVANTAGE BUT A VIRTUAL REQUIREMENT FOR A SPECIALIZED TASK.

THUS, IN SAN DIEGO'S DEFENSE EFFORT, WITH MANPOWER AT A PREMIUM, DEAF MUTES RELEASE PERSONS WITH NORMAL HEARING AND SPEAKING ABILITY FOR OTHER JOBS TO WHICH THEY ARE BETTER SUITED.



NEW'S BUREAU & FROM AERONAUTICAL COMPANY

1000 BROADWAY, NEW YORK, N. Y.

ESTABLISHED 1912

NEW YORK, N. Y., [Date]

[Name]

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PLANISHING IS AN ESSENTIAL OPERATION TO REMOVE MINUTE "WRINKLES" THAT MAY REMAIN IN PARTS FORMED BY THE DROP-HAMMER METHOD. IN AN EXHAUST SYSTEM THROUGH WHICH PASS EXTREMELY HOT GASES, OF TEMPERATURES AS HIGH AS 1900<sup>0</sup>F., A SMALL "WRINKLE" CAN RESULT IN A "HOT SPOT". INTERRUPTION OF THE SMOOTH FLOW OF THE GAS WILL WEAR OUT THE EXHAUST SECTION AT THAT SPOT AT A FASTER THAN NORMAL RATE.

APPROXIMATELY 30 TO 35 PERCENT OF THE EXHAUST SYSTEM PARTS NEED PLANISHING, AND THE HAMMERING IS INCESSANT IN THE "BUMP SHED", THE AIRCRAFT COLLOQUIALISM FOR THAT NOISY PORTION OF THE PLANT. IT'S A SKILLED JOB IN WHICH AIR PRESSURE MUST BE CAREFULLY OBSERVED AT ALL TIMES, AND THE OPERATOR MUST DECIDE ON THE CORRECT "DOLLY" TO PLACE INTO THE HAMMER, DEPENDING ON THE PART'S CURVATURE.

ONE OF THE OLDEST FACTORY WORKERS IN SAN DIEGO IS A DEAF MUTE. HE IS S. M. BREESE, 69, WHO HAS BEEN IN THE RYAN PLANISHING DEPARTMENT FOR 9 YEARS. A DEAF MUTE SINCE BIRTH, HE HAS BEEN IN INDUSTRIAL WORK MOST OF HIS LIFE. FOR 37 YEARS HE WAS EMPLOYED AT THE AUTOMATIC ELECTRIC COMPANY PLANT IN CHICAGO, ILLINOIS.

WHEN HE RETIRED IN 1939, HE CAME TO SAN DIEGO AND THE WEATHER AND SCENERY CONVINCED HIM HE OUGHT TO SETTLE DOWN HERE.

"I WAS RESTLESS," BREESE WRITES, "AND FIRST I WENT TO WORK AS A DISHWASHER IN A HOTEL. THEN I GOT THIS JOB AT RYAN, AND I LEARNED FAST. I LIKE IT AND I WANT TO STICK TO IT AS LONG AS I LIVE. EVERYBODY IS FRIENDLY AND UNDERSTANDING. I AM PROUD OF MY STEADY POSITION."

MRS. PAULINE STICHT, 62, IS ANOTHER "OLD-TIMER" DEAF MUTE AT RYAN. SHE HAS BEEN A PLANISH OPERATOR SINCE 1943, AND TREASURES HER RECORD OF DOING ESSENTIAL TASKS IN BOTH WORLD WARS I AND II. IN THE FIRST CONFLICT, SHE WAS EMPLOYED IN A LOCAL BLUEPRINT CONCERN DOING WORK FOR THE NAVY.

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"I WORKED 10 HOURS A DAY, 7 DAYS A WEEK," SHE RECALLS. "THERE WERE NO INCOME TAXES, AND NO RATIONING IN THOSE DAYS."

HER SCHOOLING WAS EXCELLENT. SHE ATTENDED A CATHOLIC CONVENT IN CHICAGO, AND JAMES MILLIKIN UNIVERSITY IN DECATUR, ILLINOIS, WHERE SHE TOOK A FINE ARTS COURSE AND MANAGED TO WIN A FENCING CHAMPIONSHIP. "I NEVER ATTENDED A SCHOOL FOR THE DEAF," SHE STATES IN PERFECT PENMANSHIP.

AN UNUSUAL COUPLE ARE F. L. PUCKETT, 51, AND HIS WIFE, JOSIE, 26, BOTH DEAF MUTES. THEY ARE EMPLOYED ON DIFFERENT SHIFTS TO CIRCUMVENT THE NEED OF HIRING A BABY SITTER. THEIR 15-MONTH OLD DAUGHTER HAS NORMAL HEARING AND VOICE. MRS. PUCKETT, ON THE DAY SHIFT, COMES HOME IN TIME TO RELIEVE HER HUSBAND OF THE CHORES OF CARING FOR THE YOUNGSTER, AND HE PROCEEDS TO THE PLANT FOR THE NIGHT SHIFT.

FOREMEN AND ASSISTANT FOREMEN WHO SUPERVISE THE DEAF MUTES' WORK HAVE BECOME QUITE ADEPT AT THE SIGN LANGUAGES NEEDED FOR COMMUNICATION ABOUT THEIR TASKS.

"WE DON'T HAVE TO WRITE DOWN OUR INSTRUCTIONS VERY OFTEN ANY MORE," SAYS ADOLPH BOLGER, FORMING AND PROCESSING FOREMAN AT RYAN. "THESE DEAF MUTES ARE QUITE ALERT AND CATCH ON QUICKLY. AND THEY DON'T WANT SPECIAL FAVORS BECAUSE OF THEIR HANDICAP."

SOMETIMES A DEAF MUTE SHOWS ABILITIES IN OTHER TYPES OF WORK. A CASE IN POINT IS THAT OF J. B. LLOYD, A 9-YEAR VETERAN OF RYAN'S PLANISHING DEPARTMENT, WHO HAS BEEN TRANSFERRED TO THE LESS NOISY JOB OF BANDSAW OPERATOR.

TO A PERSON WITH NORMAL HEARING, SUCH A MOVE MIGHT BE CONSIDERED WELCOME FROM THE STANDPOINT OF LESS WEAR AND TEAR ON THE EARDRUMS.

BUT IN THE QUIET WORLD OF DEAF-MUTE LLOYD, THE CHANGE MEANT BUT ONE THING. A HANDICAPPED PERSON HAS BEEN ACCEPTED ON HIS OWN MERITS AND GIVEN GREATER RESPONSIBILITY IN A NATIONAL DEFENSE INDUSTRY.

It is a pleasure to have you here...

...and we are looking forward to...

...the first of the year... the first of the year... the first of the year...

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FROM: WILLIAM WAGNER  
RYAN AERONAUTICAL COMPANY  
LINDBERGH FIELD, SAN DIEGO

## OFFICERS STUDY RYAN XQ-2

### PILOTLESS JET TARGET PLANE

DWARFED BY THE STRUCTURE OF RYAN AERONAUTICAL COMPANY'S HUGE FINAL ASSEMBLY BUILDING, A GROUP OF GUIDED MISSILE EXPERTS OF THE MILITARY SERVICES STUDY THE RYAN XQ-2 JET PROPELLED PILOTLESS TARGET PLANE AS THEY LISTEN TO A TECHNICIAN DISCUSS DESIGN DETAILS. (THE LOW-ANGLE SHOT WAS NECESSARY TO OBSCURE THE XQ-2 PLANE WHICH HAS NOT YET BEEN CLEARED FOR RELEASE.)

AS PART OF THE FINAL PHASE OF SEVERAL MONTHS' INSTRUCTION ON GUIDED MISSILE RESEARCH AND DEVELOPMENT, 50 OFFICERS OF THE AIR FORCE, ARMY, NAVY, ROYAL AIR FORCE AND CANADIAN AIR FORCE RECENTLY VISITED THE RYAN PLANT.

THE OFFICERS, STUDENTS IN THE ARMED SERVICES GUIDED MISSILES SCHOOL AT FORT BLISS, TEXAS, WERE IN SAN DIEGO ON A PRACTICAL EXPERIENCE SCHOOLING WHICH HAS TAKEN THEM INTO MANY OF THE AIRCRAFT FACTORIES WORKING ON GUIDED MISSILES AND IN ALLIED FIELDS.

AT RYAN, THE ALL-DAY SESSION DIRECTED BY 13 RYAN ENGINEERS INCLUDED LABORATORY VISITS AND INSPECTION OF PRODUCTION DEPARTMENTS. THERE WERE LIMITED DEMONSTRATION AND MOTION PICTURES OF SEVERAL SECRET PROJECTS AND OTHERS OF A CLASSIFIED NATURE ON WHICH RYAN IS CURRENTLY WORKING. WORK IN THE FIELDS OF ELECTRONICS, GUIDANCE SYSTEMS, JET PROPULSION AND EXHAUST SYSTEMS RESEARCH WAS STUDIED. RYAN'S XQ-2 JET PROPELLED PILOTLESS TARGET PLANE WAS INCLUDED IN THE LABORATORY AND PRODUCTION INSPECTIONS, AND MOTION PICTURES INCLUDED THOSE SHOWING THE RYAN "FIREBIRD" AIR-TO-AIR GUIDED MISSILE.

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MEMORANDUM FOR THE DIRECTOR  
SUBJECT: [Illegible]

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# NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

OFFICERS STUDY RYAN XQ-2

PILOTLESS JET TARGET PLANE

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LT. COL. JOSE E. OLIVARES, AN ARTILLERY OFFICER, WAS THE SENIOR OFFICER OF THE VISITING GROUP.



WESTERN AIRCRAFT COMPANY

10000 10th Avenue, Los Angeles, California

Dear Sirs:

Reference is made to your letter of the 15th of this month regarding the purchase of 100 units of Model A-100 aircraft. The same is hereby acknowledged and the purchase order is being prepared. The price of each unit is \$1,200.00. The total amount of the purchase is \$120,000.00. The purchase order will be issued within the next few days. Please advise us if you have any questions.

Sincerely,  
John Doe



# NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

## RYAN NAMES ZIPPWALD ASSISTANT

### DIRECTOR OF CUSTOMER SERVICE

A PERSONABLE YOUNG MAN WHO DESCRIBES HIMSELF AS "JUST A FARM BOY" HAS JUST BEEN PROMOTED TO THE POST OF ASSISTANT DIRECTOR OF CUSTOMER SERVICE AT RYAN AERONAUTICAL COMPANY, SAN DIEGO. FIFTEEN YEARS AGO HE WAS A 40-CENT AN HOUR AIRCRAFT WORKER.

HE IS JACK C. ZIPPWALD, 35, WHO WAS SPOTTED IN 1938 BY SAM C. BREDER, DIRECTOR OF CUSTOMER SERVICE, AS PROMISING EXECUTIVE MATERIAL WHEN HE HAD RISEN TO THE POST OF ASSISTANT FOREMAN IN THE EXHAUST MANIFOLD ASSEMBLY DEPARTMENT.

THAT WAS THE YEAR IN WHICH RYAN WAS MAKING LONG STRIDES TOWARD ITS PRESENT POSITION OF LEADERSHIP IN THE PRODUCTION OF STAINLESS STEEL EXHAUST SYSTEMS FOR AIRCRAFT. AS THE VOLUME OF MANIFOLDS IN SERVICE INCREASED METEORICALLY, IT BECAME NECESSARY TO HAVE A FIELD SERVICE REPRESENTATIVE. BREDER CHOSE ZIPPWALD AS THE FIRST SUCH REPRESENTATIVE TO HELP CUSTOMERS WITH THEIR ENGINEERING AND SERVICE PROBLEMS ON MANIFOLDS.

ZIPPWALD TRAVELLED THROUGHOUT THE UNITED STATES AND INTO CANADA. AFTER WORLD WAR 11, HE WAS NAMED FIELD REPRESENTATIVE FOR THE SOUTHERN CALIFORNIA AREA, WHERE SOME OF RYAN'S LARGEST CUSTOMERS ARE LOCATED.

ZIPPWALD ACHIEVED HIS "FARM BOY" APPELLATION HONESTLY. ALTHOUGH A NATIVE OF CHICAGO, HE CAME TO CALIFORNIA WITH HIS FAMILY AT THE AGE OF 4 AND SETTLED ON A CITRUS RANCH IN LEMON GROVE, A SAN DIEGO SUBURB. TODAY, HE HAS A 24-ACRE RANCH OF HIS OWN IN LEMON GROVE. TO HELP PAY FOR THE LAND, ZIPPWALD OFTEN SPENT WEEK-ENDS OPERATING HIS OWN TRACTOR FOR OTHER FARMERS ON A FOR-HIRE BASIS.



# NATIONAL BUREAU OF STANDARDS

U.S. DEPARTMENT OF COMMERCE

STANDARD SPECIFICATION FOR  
STEEL RIVETS

1. SCOPE AND FIELD OF APPLICATION  
This specification covers the requirements for steel rivets of the following types and sizes:

(a) Type A - Hexagonal head, smooth shank, unthreaded shank, and hexagonal tail.

(b) Type B - Hexagonal head, smooth shank, unthreaded shank, and hexagonal tail.

(c) Type C - Hexagonal head, smooth shank, unthreaded shank, and hexagonal tail.

(d) Type D - Hexagonal head, smooth shank, unthreaded shank, and hexagonal tail.

(e) Type E - Hexagonal head, smooth shank, unthreaded shank, and hexagonal tail.

(f) Type F - Hexagonal head, smooth shank, unthreaded shank, and hexagonal tail.

(g) Type G - Hexagonal head, smooth shank, unthreaded shank, and hexagonal tail.

(h) Type H - Hexagonal head, smooth shank, unthreaded shank, and hexagonal tail.

(i) Type I - Hexagonal head, smooth shank, unthreaded shank, and hexagonal tail.

BREder POINTED OUT THAT THE ADVANCE OF ZIPPWALD IS TYPICAL OF RYAN'S POLICY OF GROOMING EXECUTIVES FROM THE RANKS OF ITS OWN EMPLOYEES.

2-10-51K





MAILING OUT: 3-16-51

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# NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

## SELF-INSURANCE OF WORKMEN'S COMPENSATION PAYS OFF AT RYAN

WHEN PREMIUMS FOR WORKMEN'S ACCIDENT COMPENSATION INSURANCE SOAR, THE TIME HAS COME FOR THE CONSIDERATION OF A SELF-INSURANCE PLAN AND A MORE RIGID EXAMINATION OF INDUSTRIAL HAZARDS. THE EXPERIENCE OF THE RYAN AERONAUTICAL COMPANY HAS RECENTLY SPOTLIGHTED THE ADVANTAGES OF SUCH A COURSE.

FOR YEARS, THIS SAN DIEGO AIRCRAFT MANUFACTURER, WHICH IS ALSO ONE OF THE WORLD'S LEADING PRODUCERS OF STAINLESS STEEL AIRCRAFT PARTS (EXHAUST SYSTEMS, JET ENGINE COMPONENTS), HAD BEEN COVERED BY PRIVATE INSURANCE CARRIERS.

CONFRONTED WITH RISING INSURANCE COSTS, RYAN'S SELF-EXAMINATION OF PLANT METHODS AND WORKER INDOCTRINATION LED TO THIS CONCLUSION: CLOSER CONTROL OF ACCIDENT PREVENTION UNDER SELF-INSURANCE WOULD SAVE MONEY AND REDUCE LOST TIME.

SELF-INTEREST WOULD BE THE SPUR TOWARD BETTER CONTROL, FOR IN CALIFORNIA A PLANT'S ACCIDENT EXPERIENCE IS THE BASIS FOR COMPUTING THE PREMIUMS, ON AN ACTUARIAL SCALE. THE COMPANY DECIDED TO UNDERWRITE ITS OWN WORKMEN'S ACCIDENT COMPENSATION INSURANCE, A PROTECTION REQUIRED BY THE STATE OF CALIFORNIA.

MANAGEMENT PUT TEETH INTO ITS SELF-INSURANCE SAFETY ENGINEERING PROGRAM. FOREMEN WHOSE DEPARTMENTS SHOWED ANY NEGLIGENCE IN SAFETY PROCEDURES WERE CALLED TO ACCOUNT BEFORE THE PRODUCTION MANAGER. "CITATIONS" FOR UNSAFE CONDITIONS SHOWED ON THEIR RECORDS.

FOREMEN LEARNED QUICKLY TO TEAM UP WITH SAFETY ENGINEERS ON THE NEVER-ENDING TASK OF IMPRESSING ON WORKERS THE RIGHT WAY TO DO A JOB, AND TO ESTABLISH "GOOD HOUSEKEEPING" PRACTICES. THE NUMBER OF "CITATIONS" DWINDLED TO THE VANISHING POINT.



FRANCO SAKHATONIA BAYZ + UJAKUS 2034

FRANCO SAKHATONIA BAYZ

FRANCO SAKHATONIA BAYZ

FRANCO SAKHATONIA BAYZ

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TODAY, RYAN POINTS TO BETTER THAN A 50 PERCENT DECLINE IN COSTS IN THE 21 MONTHS OF SELF-INSURANCE.

RYAN'S DESIRE TO IMPROVE EMPLOYER-EMPLOYEE RELATIONS BY FURNISHING A SAFER PLACE TO WORK, AND THE COMPANY'S FULL ASSUMPTION OF THE RISKS OR LOSSES HAVE PROVIDED THE INCENTIVE TOWARD PLACING SAFETY FIRST.

"WE ARE IMPRESSING ON EVERYONE THAT SAFETY IS A STATE OF MIND," M. M. CLANCY, SUPERVISOR OF SAFETY AND WELFARE AT RYAN, EXPLAINS. "MOST ACCIDENTS ARE CAUSED BY CARELESSNESS OR INATTENTION. BUT WHERE SAFETY ENGINEERING HAS DETERMINED THAT HAZARDS EXIST DUE TO WORK PROCEDURES OR MACHINERY ARRANGEMENT, THESE HAVE BEEN CHANGED."

SAFETY ENGINEER, H. E. RAWLINGS, TOURS THE PLANT DAILY ON SHARP LOOKOUT FOR UNSAFE HABITS OR SITUATIONS. HE CONSTANTLY CONFERS WITH FOREMEN OVER SAFETY METHODS. SAFETY HAS BECOME AN INTEGRAL ELEMENT IN THE SUPERVISORIAL ATTITUDE.

TWO SAFETY COMMITTEES FUNCTION CONSTANTLY. ONE IS COMPOSED OF RAWLINGS AND FOUR SHOP WORKERS CHOSEN BY THEIR UNIONS (U.A.W.-C.I.O. AND UNITED AIRCRAFT WELDERS). EACH FRIDAY THIS GROUP TOURS THE PLANT TO SPOT HAZARDOUS CONDITIONS. IF THEIR RECOMMENDATIONS TO MANAGEMENT REQUIRE ACTION, PROMPT CORRECTIONS ARE MADE.

THE OTHER COMMITTEE, COMPRISING FOREMEN, ASSISTANT FOREMEN AND SUPERINTENDENTS, MEETS MONTHLY WITH TED SMITH, NOTED LOS ANGELES CONSULTING SAFETY ENGINEER. THE MONTH'S ACCIDENT EXPERIENCE IS THOROUGHLY REVIEWED AND THE SHORTCOMINGS ARE TACKLED IMMEDIATELY. SMITH ALSO MEETS WITH THE SHOP WORKMEN'S SAFETY COMMITTEE MONTHLY.

THE STATE OF CALIFORNIA DOES AN IMPORTANT "BACK-UP" JOB. THE PLANT, LIKE ALL OTHERS, IS UNDER RIGID, PERIODIC STATE INSPECTION TO ASSURE CONFORMITY WITH THE STATE SAFETY CODE.

EVERY NEW EMPLOYEE GOES THROUGH AN INDUCTION PROCESS IN WHICH HE STUDIES A SAFETY MANUAL PREPARED BY THE COMPANY. THIS MANUAL SHOWS THE RIGHT WAY OF DOING EVERY TYPE JOB IN WHICH TOOLS ARE EMPLOYED. THE INDUCTION CLASS IS FOLLOWED UP BY SPECIFIC ON-THE-JOB SAFETY INSTRUCTION OF THE FOREMAN.

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"SAFETY IS A STATE OF MIND" HAS BECOME A RYAN SLOGAN. STRESSED IS THAT VIRTUALLY EVERY ACCIDENT IS DUE TO FAILURE OF THE WORKER TO HAVE SAFETY CONSTANTLY ON HIS MIND.

"FOR INSTANCE, A WORKER HAS A SMALL JOB TO DO ON A GRINDER," CLANCY EXPLAINS. "HE SAYS TO HIMSELF, 'IT'LL JUST TAKE A FEW SECONDS. I WON'T BOTHER TO GET MY GOGGLES.' THAT'S WHEN THE ACCIDENT HAPPENS--WHEN AN EYE IS LIKELY TO BE PUT OUT BY A FLYING PARTICLE."

FOR AN INJURY OR INDUSTRIAL ILLNESS, MEDICAL AND HOSPITAL BILLS, REGARDLESS OF THE AMOUNT, ARE PAID, IN ADDITION TO \$30 A WEEK STARTING ON THE EIGHTH DAY OF DISABILITY. TO INSURE PAYMENT, THE STATE REQUIRES DEPOSIT WITH IT OF A \$50,000 BOND, EXCLUSIVE OF THE AMOUNT IN THE COMPANY'S OWN INSURANCE RESERVE FUND.

SELF-INSURANCE OF THIS TYPE IS A PRIVILEGE WHICH MUST BE APPROVED BY THE STATE AFTER AN INVESTIGATION OF THE COMPANY'S INTEGRITY AND DEMONSTRATED ABILITY TO RESPOND IN EVENT OF DAMAGES. ADMINISTRATION OF RYAN'S FUND IS PERFORMED BY A LOS ANGELES FIRM OF SELF-INSURANCE CONSULTANTS AND ADMINISTRATORS, MUNO, MCLAURIN AND CORNELL.

MOST COMMON OF THE EXPENSIVE INJURIES ARE STRAINED BACKS, CAUSED BY IMPROPER LIFTING METHODS. FINGER AND HAND INJURIES OCCUR WITH GREATEST FREQUENCY.

BUT ALL TYPES OF ACCIDENTS HAVE BEEN DRASTICALLY REDUCED BY THE HAWK-EYED CONTROL WHICH WAS IMPOSED WHEN INSURANCE BECAME RYAN'S BUSINESS.

DURING THE FIRST YEAR OF SELF-INSURANCE, RYAN SAVED 50 PERCENT OF THE PREMIUM IT WOULD HAVE HAD TO PAY TO THE PRIVATE CARRIER. THIS YEAR, THE SAVING IS EXPECTED TO BE EVEN GREATER, ACCORDING TO CLANCY.

IN SOME PLANTS, THE LOSS RATIO RUNS AS HIGH AS 100 PERCENT--THAT IS, THE AMOUNT PAID OUT BY THE PRIVATE INSURANCE CARRIER FOR MEDICAL AND HOSPITAL BILLS AND COMPENSATION EQUALS THE PREMIUM, WHICH IS BASED ON THE PREVIOUS FIVE YEARS' ACCIDENT EXPERIENCE AVERAGE.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. The second part outlines the procedure for handling discrepancies, such as missing receipts or incorrect amounts. It states that any such issues should be reported immediately to the relevant department for investigation and resolution.

The third section details the process of reconciling accounts at the end of each month. It requires that all bank statements be compared against the internal ledger to ensure that the figures match. Any variances must be identified and explained. The fourth part describes the role of the internal audit team in reviewing the financial data to ensure compliance with company policies and external regulations. It notes that audits are conducted on a regular basis to maintain the integrity of the financial reporting process.

The final section provides a summary of the key points discussed in the document. It reiterates the commitment to transparency and accuracy in all financial reporting. It concludes by stating that the information provided is intended to guide all employees in their handling of financial matters and to ensure that the organization's financial health is always accurately reflected in its reports.

USING ARBITRARY FIGURES, UNDER SUCH A LOSS RATIO, \$50,000 WOULD BE PAID BY THE COMPANY IN PREMIUMS TO COMPENSATE THE INSURANCE COMPANY FOR THE EMPLOYEE CLAIMS IT WOULD HAVE TO PAY. A PLANT SWITCHING TO SELF-INSURANCE, IF IT ENJOYED RYAN'S IMPROVED SAFETY RECORD, WOULD HAVE TO PAY OUT ONLY \$25,000 IN CLAIMS THE FIRST YEAR, COMPARED WITH A PREMIUM WHICH PROBABLY WOULD HAVE EXCEEDED \$50,000.

THERE IS THE DOLLARS-AND-CENTS INCENTIVE FOR MANAGEMENT TO IMPOSE THE RIGID CONTROLS THAT MAKE A PLANT A SAFER PLACE IN WHICH TO WORK.

(1) The first part of the document is a letter from the  
 author to the editor of the journal. In this letter, the  
 author explains the reasons for writing the paper and  
 discusses the main findings of the study. The author  
 also mentions that the paper is based on a review of  
 the literature and on original research. The author  
 concludes the letter by expressing his hope that the  
 journal will find the paper of interest to its  
 readers.

(2) The second part of the document is the abstract  
 of the paper. The abstract is a short summary of  
 the paper, which includes the title, the author's  
 name, and the main findings of the study. The  
 abstract is written in a concise and clear manner,  
 and it provides a good overview of the paper's  
 content.

(3) The third part of the document is the  
 introduction of the paper. The introduction  
 begins with a statement of the problem that the  
 paper is addressing. It then goes on to discuss  
 the importance of the problem and the need for  
 further research. The introduction also mentions  
 the main findings of the study and concludes with  
 a statement of the author's conclusions.

(4) The fourth part of the document is the  
 literature review. The literature review is a  
 critical analysis of the research that has been  
 done in the field of the paper. It discusses  
 the strengths and weaknesses of the existing  
 research and identifies the gaps in the  
 literature. The literature review also provides  
 a context for the paper's research.

(5) The fifth part of the document is the  
 methodology section. The methodology section  
 describes the methods that were used in the  
 study. It includes a description of the data  
 sources, the data collection methods, and the  
 data analysis methods. The methodology section  
 also discusses the limitations of the study and  
 the steps that were taken to minimize these  
 limitations.

(6) The sixth part of the document is the  
 results section. The results section presents  
 the findings of the study in a clear and  
 organized manner. It includes a description of  
 the data and a discussion of the results. The  
 results section also includes a table of the  
 data and a figure that illustrates the results.

(7) The seventh part of the document is the  
 discussion section. The discussion section  
 discusses the implications of the study's  
 findings. It includes a discussion of the  
 strengths and weaknesses of the study and a  
 discussion of the limitations of the study. The  
 discussion section also includes a discussion of  
 the future research that is needed in the  
 field.

(8) The eighth part of the document is the  
 conclusion section. The conclusion section  
 summarizes the main findings of the study and  
 provides a final statement of the author's  
 conclusions.

(9) The ninth part of the document is the  
 references section. The references section  
 lists the sources of the information that was  
 used in the paper. It includes a list of the  
 books, articles, and other sources that were  
 consulted.

(10) The tenth part of the document is the  
 appendix section. The appendix section  
 contains supplementary information that is related  
 to the paper. It includes a list of the  
 abbreviations that were used in the paper and  
 a list of the symbols that were used in the  
 paper.



FOR IMMEDIATE RELEASE  
MAILED: 3-19-51  
SAN DIEGO UNION (ORIG)  
TRIBUNE

# NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH    HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

A 12-WEEK COURSE IN THE BASIC PRINCIPLES OF FREIGHT TRANSPORTATION AND PREPARATION OF SHIPPING DOCUMENTS WILL BE GIVEN BY THE SAN DIEGO VOCATIONAL SCHOOL STARTING MONDAY NIGHT (MARCH 26) AT 7.

THE CLASS, OF INTEREST TO SHIPPING AND RECEIVING CLERKS, OFFICE EMPLOYEES, CUSTOM BROKERS AND ALL PERSONS WHO HANDLE FREIGHT DOCUMENTS, WILL BE CONDUCTED BY TAFT KALLOF, TRAFFIC MANAGER OF RYAN AERONAUTICAL COMPANY. IT WILL CONVEENE EVERY MONDAY FOR 12 WEEKS FROM 7 TO 9 P.M. IN ROOM 204 OF THE VOCATIONAL SCHOOL, 835 TWELFTH AVENUE.

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3-20-51K



HEWLETT-PACKARD COMPANY

1955

CHICAGO, ILL.

Dear Sirs:

I have the pleasure to inform you that your order for Hewlett-Packard Model 1000A is now being processed. The estimated date of shipment is approximately two weeks from this date.

Should you have any questions regarding this order, please do not hesitate to contact our Sales Department at (312) 480-1000.

Sincerely,  
 J. W. Hewlett  
 President

1000A

1000A



When C. L. Foushee, Jr., became a field service representative for Ryan Aeronautical Company's Metal Products Division specializing in exhaust systems, he didn't realize he'd be going into the publishing business.

Today, with eight "book" to his credit, Foushee can be considered an "author" as well as a technical authority. His books haven't become best-sellers, but to their group of readers, they're all-important. The "books" are the service manuals which provide detailed information needed by users of Ryan exhaust equipment for their proper maintenance.

Foushee's first creative effort in the publishing field was the service manual on the Douglas DC-6 exhaust system. Since then, the demand has been steady. He has turned out manuals on the manifolds for the Convair 240 and T-29; Boeing 377 Strato-cruiser, C-97 Stratofreighter and B-50 bomber; Fairchild C-119 Packet and Douglas C-124 Globemaster.

Now he's gathering the material for two more manuals, on the Piasecki HRP-2 and HUP-1 helicopters.

Like an editor who coordinates the flow of information from numerous news sources, Foushee gathers his data from various channels and organizes it into a neat package of information.

His "news sources" are not only Ryan's own engineers, welding technicians and metallurgical laboratory personnel, but the prime contractors' service and engineering groups, the commercial airlines and the military.

A manual is published only after a prototype of the exhaust system is built and enough have gone into service to provide the answers of what to expect under actual operating conditions. Once published, the manual doesn't remain a fixed, arbitrary compendium of facts. Like a history book or encyclopedia which must be changed ~~to~~ in new editions to reflect new conditions, the manual is constantly revised to keep up



with changes made by engineers as result of service experience.

Let's take a look at a typical service manual. Like any book, it has an introduction and several chapters. The introduction is a general description of the main items in the exhaust system. The chapters deal with the principal features of installation, maintenance, repair and inspection.

Chapter I is likely to be a reference parts list#, giving the installation numbers and the sub-assemblies required for complete installation, including all bolts, nuts washers and cotters. This data is obtained by Foushee from a parts catalogue prepared by the engineering department.

In Chapter 2, an installation instruction sheet is included. This is first checked with the Ryan engineering department and with the operator in the field. Foushee points out that under operating conditions, techniques of installation may be developed that may prove superior to the concept in the factory. The installation instructions are comprehensive, ranging from removing the protective covers after the engines are taken from their shipping crates, to the proper fit of bolts and how to check the exhaust system during the initial engine run.

Chapter 3 deals with the inspection procedure -- what sections should be observed periodically while the exhaust system is in operation in the aircraft.

Ryan's vast store of exhaust systems experience is drawn upon for recommendations in Chapter 4, dealing with maintenance and repair. Included is information on the minimum limits/parts can be checked -- such as flange and material thickness with regard to wear. You'll find minute instructions, as, for example, "Check clamps for cracks around belt lugs." Definite limits of thickness are set, and the part is to be discarded if wear has caused it to become thinner than a certain dimension.

Chapter 5 is the story of proper alignment -- the use by operators of their own fixtures for checking parts at overhaul periods. Ryan supplies the operators with



drawings of fixtures to assist them in producing alignment jigs.

The sizing of parts is told in Chapter 6. When a part leaves the Ryan plant, it has a definite close tolerance dimension. If it is re-sized to that dimension in the overhaul period, the amount of leakage and wear and general installation problems are held to a minimum. Ideal dimensions are contained in this chapter.

Recommended and accepted welding practices for repairs by the operator are outlined in detail in Chapter 7.

If a new material is used, a separate chapter will acquaint the operator with its characteristics. For instance, on the Boeing 377, a new high heat resistant steel alloy, 19-9DL, was used for the first time in a Ryan exhaust system. In the service manual for this system, considerable attention is given to tensile strength, percentage of elongation, scaling temperature, stress rupture properties, etc.

Information also is given on the different techniques required in welding and the type of rod to be used on the new alloy.

Foushee's service manuals aren't all words. There are also usually either a series of photographs showing the entire assembly and parts list, or a detailed blueprint.

Biggest circulation attained by Foushee's "books" was that for the DC-6 exhaust system, on which 250 copies were distributed. On a commercial plane order, the prime contractor requisitions a certain number of copies, or supplies Ryan with a list of users of the aircraft and the number to be sent each.

On military planes, a specified number is sent to the prime contractor, who distributes them to the personnel in his own factory requiring this information, and to field service representatives. The military itself digests the manual and places the essential information into the bulky AN Handbook, which covers every item in the complex mechanism of a modern plane.

Copies of the manual are also supplied Ryan's own service and sales representatives for reference in meeting problems that may arise in the field. Other manual

The first section of the report discusses the general situation of the country and the progress of the work during the year. It is followed by a detailed account of the various projects and the results achieved. The second section deals with the financial aspects of the work, including the budget and the expenditure. The third section contains the conclusions and recommendations of the committee. The report is signed by the members of the committee and the chairman.

The committee has the honor to inform you that the work of the year has been completed and the results are being prepared for publication. The report will be sent to you as soon as it is ready. We are sure that you will find it of interest and value.

Very respectfully,  
 The Chairman of the Committee

users are the Air Materiel Command at Wright Field and the Civil Aeronautics Authority.

Manuals are usually revised and brought up to date about every six months. "We may have to replace 1 page or 20 pages," Foushee points out.

Like all authors or editors, he occasionally has last-minute headaches just before publication is scheduled — or even after it is printed.

Sometimes the manual is completed and ready for distribution when engineering changes suddenly arise. Foushee then must disassemble the manual and make the necessary revisions before any copies get out.

It's a job where speed and accuracy are factors as essential as in any well-run publishing business.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author details the various methods used to collect and analyze the data. This includes both manual data entry and the use of specialized software tools. The goal is to ensure that the data is both accurate and easy to interpret.

The third part of the document provides a detailed breakdown of the results. It shows that there is a clear trend in the data, which is consistent with the initial hypothesis. This finding is significant as it provides strong evidence for the proposed model.

Finally, the document concludes with a summary of the key findings and a list of recommendations for future research. It suggests that further studies should be conducted to explore the underlying causes of the observed trends and to test the model under different conditions.





## NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

### DIRECTORS AND OFFICERS OF RYAN AERONAUTICAL COMPANY RE-ELECTED

T. Claude Ryan, founder of the Ryan Aeronautical Company, has been re-elected President by the Board of Directors and has entered his 29th year as active head of the organization he established in 1922 in San Diego.

Other officers re-named by the Board were G. C. Woodard, executive vice president and treasurer; Earl D. Prudden, vice president; C. A. Stillwagen, secretary; L. L. Underwood, controller, and D. H. Ockerman, assistant secretary and assistant treasurer.

Re-election of the officers followed the annual meeting of stockholders at which all the former board members were re-elected for the ensuing year. They include, in addition to Ryan, Woodard and Prudden, C. Arnholt Smith, chairman of the board of the United States National Bank, San Diego; and Melvin H. Lockett, partner, Mattison, Thomas and Lockett, certified public accountants of Los Angeles.

"The company's airplane and metal products divisions are now devoted exclusively to production of military aircraft and military aircraft components," Ryan told stockholders in a discussion period during the annual meeting.

"Our \$30,000,000 backlog of business on hand carries with it the responsibility for the company to gear its operations to the military needs in the way it can best serve, and to further substantially increase its production volume and engineering accomplishments.



HEWLETT-PACKARD COMPANY

1955

[The main body of the document contains several paragraphs of extremely faint, illegible text, likely representing a letter or report.]

"While the increased demand for military aircraft since the start of the Korean War was not reflected in 1950's business results, deliveries are now starting at an accelerated rate on products we have previously been manufacturing. Important among these are jet engine components, exhaust manifold systems and fuselage sections for military transport planes. In addition, volume production is getting under way on huge external fuel tanks for combat aircraft, and new work is being started on other airframe components. All of these projects are scheduled for continued acceleration of deliveries."

Discussing the future of the company's guided missile and pilotless aircraft programs, Ryan reported continued progress on the Ryan XQ-2 jet-propelled plane under joint Army-Navy sponsorship and revealed that "The company is making substantial contributions to the country's overall guided missile program. We are actively engaged in the electronic phases of guided missile research as well as production of rocket bodies and rocket engine parts for missiles.

"The future possibilities for Ryan in this field are very great. The aircraft companies, rather than electronics and armament manufacturers, are emerging as the prime developers and builders of guided missiles largely because of the aerodynamic and control problems which must be met and with which they are most familiar.

"Ryan also has the knowledge and experience to maintain a top position in the manufacture of stainless steel components for jet engines. This field is one of increasing importance to the company's program since this type power plant is becoming predominant for military planes.

1870

Received of the Treasurer of the State of New York  
the sum of \$1000.00 for the year 1870

Given in full for the year 1870

Witness my hand and seal of office this 1st day of January 1870

John T. Hoffman

Comptroller of the State

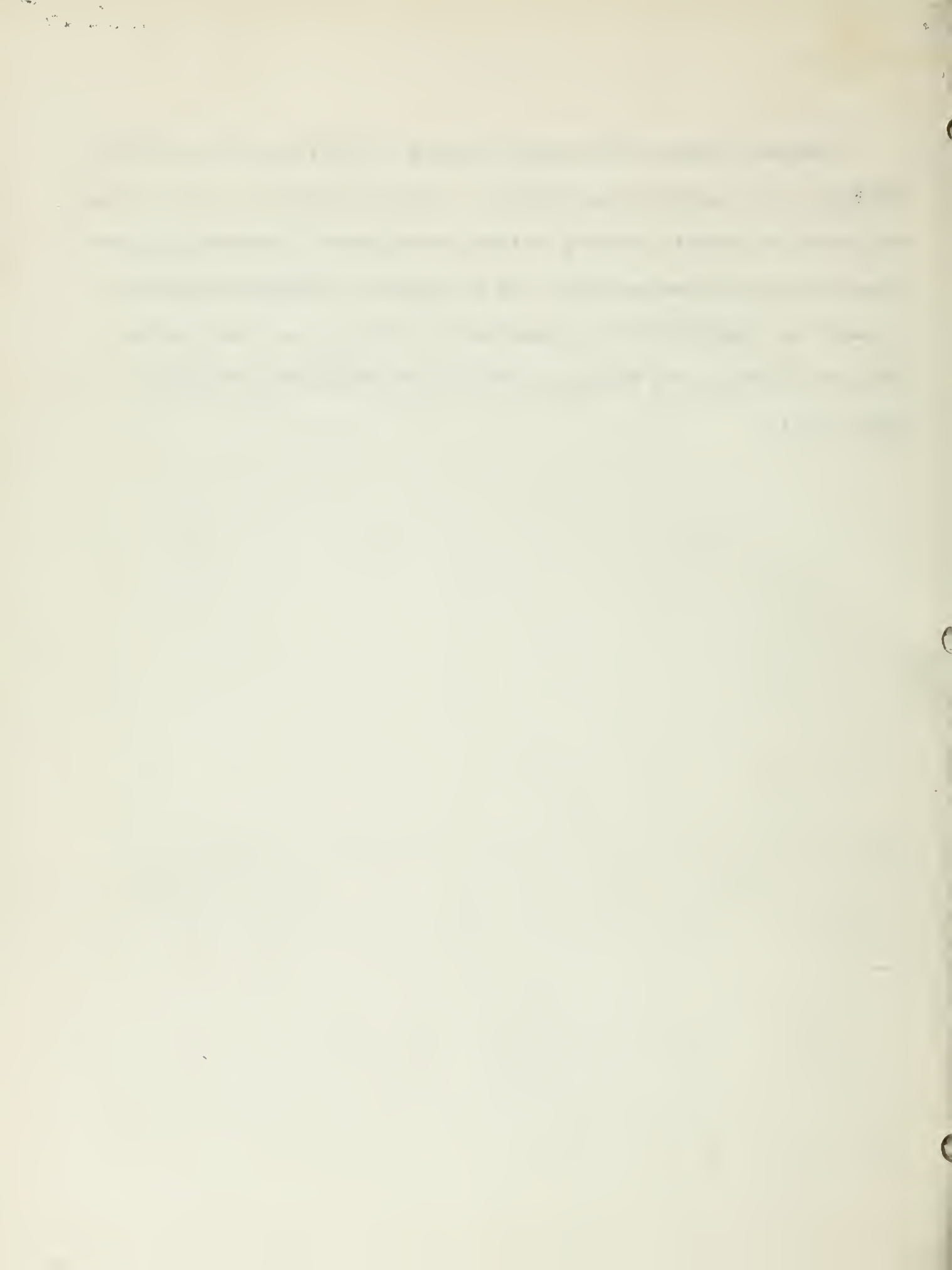
State of New York

1870

1870

1870

"Constant changes in the rapidly developing art of aircraft design require flexibility in our manufacturing operations. The Ryan plant must be adapted to a wide variety of products requiring constant rearrangement of facilities, purchase of new machine tools and equipment, and the expansion of manufacturing space. In many ways, the period of semi-mobilization in which we now find ourselves offers more problems for management than the total mobilization we had in World War 11."





# NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

## MAKERS OF JET PARTS

### STUDY CUT-AWAY ENGINE

RYAN AERONAUTICAL COMPANY EMPLOYEES RECENTLY VIEWED FOR THE FIRST TIME THE POWERFUL GENERAL ELECTRIC J-47 TURBO-JET ENGINE FOR WHICH THEY ARE BUILDING NUMEROUS COMPONENT PARTS, INCLUDING COMBUSTION CHAMBERS, EXHAUST CONES AND TRANSITION LINERS.

A "CUT-AWAY" OF THE J-47 TO EXPOSE ITS INNER WORKINGS WAS DISPLAYED IN THE OUTDOOR CAFETERIA PLAZA DURING REST AND LUNCH PERIODS. EMPLOYEES WERE ABLE TO MANIPULATE A LEVER WHICH CAUSED THE MECHANISM TO REVOLVE SLOWLY.

ACCOMPANIED BY DANIEL W. STOWELL, FOREMAN FOR GENERAL ELECTRIC'S AIRCRAFT GAS TURBINE DIVISION IN LYNN, MASSACHUSETTS, THE "CUT-AWAY" ENGINE IS ON A NATIONWIDE TOUR OF FACTORIES PROVIDING PARTS. "WE WANT WORKERS TO SEE THE END PRODUCT TO WHICH THEY'RE CONTRIBUTING," STOWELL EXPLAINED.

THE J-47 IS THE MOST POWERFUL TURBO-JET IN FULL-SCALE PRODUCTION IN THE UNITED STATES. IT IS USED IN THE NORTH AMERICAN F-86 SABRE FIGHTER, HOLDER OF THE OFFICIAL WORLD'S SPEED RECORD OF 671 MILES AN HOUR; THE BOEING B-47 STRATOJET, WORLD'S FASTEST BOMBER; CONVAIR B-36D, REPUBLIC XF-91 INTERCEPTOR; NORTH AMERICAN B-45 TORNADO; NORTH AMERICAN F-95 INTERCEPTOR; AND MARTIN XB-51 GROUND SUPPORT BOMBER.

FORWARD THRUST IS GIVEN PLANES BY EXPANDING GASES AS THEY ARE EXPELLED AT THE REAR OF THE J-47 ENGINE AT ABOUT 1200 MILES PER HOUR. AIR ENTERS AN INLET AT THE FRONT OF THE ENGINE AT THE RATE OF NEARLY THREE TONS PER MINUTE. TEMPERATURES AS HIGH AS 2000° F. ARE GENERATED INSIDE THE ENGINE, AND AT HIGH SPEED THE THRUST IS EQUIVALENT TO ABOUT 10,000 H.P.



[The main body of the document contains several paragraphs of text that are extremely faint and illegible due to the quality of the scan. The text appears to be a formal report or memorandum.]



RYAN AERONAUTICAL COMPANY EMPLOYEES YESTERDAY (WEDNESDAY) VIEWED FOR THE FIRST TIME THE POWERFUL GENERAL ELECTRIC J-47 TURBO-JET ENGINE FOR WHICH THEY ARE BUILDING NUMEROUS COMPONENT PARTS, INCLUDING COMBUSTION CHAMBERS, EXHAUST CONES AND TRANSITION LINERS.

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MAILING OUT: 3-28-51 (WITH PIX)  
SELECTED AVIATION MAGS 1  
& TECHNICAL RED

## NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

BRITISH HERE TO STUDY

RYAN JET TARGET PLANE

GREAT BRITAIN'S INTEREST IN A SAN DIEGO AIRCRAFT PROJECT OF ADVANCED DESIGN WAS DISCLOSED THIS WEEK.

FOUR AIRCRAFT ENGINEERS HOLDING KEY POSTS IN THE MINISTRY OF SUPPLY, LONDON, AND THE ROYAL AIRCRAFT ESTABLISHMENT, FARNBOROUGH, INSPECTED THE RYAN XQ-2, PILOTLESS JET PLANE UNDER DEVELOPMENT AT RYAN AERONAUTICAL COMPANY FOR THE U.S. AIR FORCE AND NAVY.

THE XQ-2 TARGET PLANE IS DESIGNED FOR TRAINING IN HIGH SPEED INTERCEPTION AND ANTI-AIRCRAFT GUNNERY. IT IS ~~CONTROLLED~~<sup>RADAR</sup>-CONTROLLED, APPROXIMATELY HALF THE SIZE OF A JET FIGHTER PLANE AND HAS COMPARABLE PERFORMANCE. MANEUVERS OF JET FIGHTERS CAN BE SIMULATED BY THIS PILOTLESS "DRONE" PLANE.

HERE FROM THE MINISTRY OF SUPPLY TO VIEW AND OBTAIN INFORMATION ABOUT THE XQ-2 WERE J. W. TRURAN AND C. A. JARMAN. E. D. WHITEHEAD AND W. O. BROUGHTON REPRESENTED THE ROYAL AIRCRAFT ESTABLISHMENT, THE BRITISH DEVELOPMENT CENTER FOR EXPERIMENTAL PROJECTS. THEY CONFERRED WITH BRUCE SMITH, DIRECTOR OF ENGINEERING, AND FORREST WARREN, JR., PROJECT ENGINEER, OF RYAN.

THE ENGINEERS WERE ACCOMPANIED TO SAN DIEGO BY SQUADRON LEADER J. L. TEMPEST OF THE BRITISH JOINT SERVICES MISSION, WASHINGTON; AND COL. OTTO HANEY, HEAD OF THE GUIDED MISSILES SECTION OF THE AIR FORCE MATERIEL COMMAND AT WRIGHT FIELD, OHIO.

TEMPEST HOLDS THE BRITISH DISTINGUISHED FLYING CROSS FOR HEROISM DURING WORLD WAR II, WHEN HE FLEW MORE THAN 30 MISSIONS OVER ENEMY TERRITORY IN LONG RANGE HALIFAX BOMBERS.

3-22-51K

1. 10/15/50  
2. 10/15/50  
3. 10/15/50



# NEWS BUREAU & RYAN AERONAUTICAL COMPANY

400 WEST WASHINGTON STREET, CHICAGO, ILL. 60601  
TELEPHONE: 312-467-1000

DATE: 10/15/50  
TO: [REDACTED]

[The following text is extremely faint and largely illegible. It appears to be a memorandum or report, possibly containing technical details or a summary of an event. The text is organized into several paragraphs with varying indentations.]



Loose Papers  
3-22-51

# NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

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3-22-51K



# NEWS BUREAU & EYE OPTICAL COMPANY

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ORIGINALS MAILED 3-12-51

To: R.E. STOCKWELL *Av. Age -*  
ALEX MCSURELY *Av. Week -*  
FRED HAMLIN *Aero Dig. -*  
RAYMOND KAY *Iron Age -*

MAILING OUT: 3-28-51 (WITH PIX)  
THE GLASS INDUSTRY CERAMIC AGE  
THE ENAMELIST BETTER ENAMEL-  
CERAMIC INDUSTRY REVIEW ING  
AMERICAN GLASS REVIEW JOURNAL OF THE  
AMERICAN CERAMIC SOCIETY

**NEWS BUREAU • RYAN AERONAUTICAL COMPANY**

*FINISH -*

**BILL WAGNER**

**BOB SMITH HAROLD KEEN**

**LINDBERGH FIELD • SAN DIEGO 12, CALIF.**

**CERAMICS FOR THE HOT SPOTS**

CERAMICS, AN ART THOUSANDS OF YEARS OLD, ASSOCIATED WITH THE AESTHETIC EXPRESSIONS OF COUNTLESS CIVILIZATIONS, IS BEGINNING TO PLAY A VITAL, INDUSTRIAL ROLE IN MODERN HIGH-PERFORMANCE AIRCRAFT.

DURING WORLD WAR II, WHEN METALLURGISTS WERE CONFRONTED WITH THE NEED FOR SAVING SUCH STRATEGIC MATERIALS AS HIGH-GRADE, HEAT-RESISTANT ALLOY STEELS, CERAMIC COATINGS WERE APPLIED TO INCREASE THERMAL EFFICIENCY WHILE USING LOW CARBON STEELS.

AT RYAN AERONAUTICAL COMPANY, PIONEERING WORK IN THE CERAMICS FIELD WAS PERFORMED WHEN PORTIONS OF MORE THAN 500 COMPLETE EXHAUST SYSTEMS FOR THE DOUGLAS A-20 ATTACK BOMBER WERE GIVEN THICK PORCELAIN ENAMEL COATINGS. THESE WERE APPLIED ON SAE 1020, A LOW CARBON STEEL USED IN MANIFOLDS BECAUSE OF A CRITICAL SHORTAGE OF STAINLESS STEEL.

TODAY THE USE OF CERAMICS HAS TAKEN LONG STRIDES AS RYAN METALLURGISTS, DESIGNERS AND SERVICE ENGINEERS CONTINUE THEIR DEVELOPMENT STUDIES. STRESSES HAVE GAINED IN MAGNITUDE AND OPERATING TEMPERATURES OF PISTON-ENGINE EXHAUST SYSTEMS HAVE INCREASED CONSIDERABLY SINCE WORLD WAR II. ENGINES GENERATING 3000 H.P. AND MORE, NEARLY TWICE THAT OF THE BIGGEST POWER PLANTS IN REGULAR USE IN THE LAST CONFLICT, ARE NOT UNCOMMON. THE NEED FOR IMPROVING HEAT RESISTANCE AND CHECKING CORROSION FROM THE EXHAUST GASES HAS INCREASED SHARPLY.

FOR SEVERAL MONTHS, TESTS OF "HEADER" SECTIONS OF RYAN EXHAUST SYSTEMS WITH THIN CERAMIC COATINGS OF .001" TO .003" HAVE BEEN CONDUCTED UNDER REGULAR SERVICE CONDITIONS IN A PAN AMERICAN WORLD AIRWAYS' BOEING 377 STRATOCRUISER OPERATING ON TRANSPACIFIC RUNS.



MEMORANDUM

TO: [Illegible]

FROM: [Illegible]

SUBJECT: [Illegible]

[The remainder of the memorandum text is illegible due to fading and low resolution.]



THESE TESTS HAVE BEEN THE SUBJECT OF INNUMERABLE CONFERENCES IN SEATTLE AND SAN FRANCISCO BETWEEN C. L. FOUSHEE, JR., RYAN SERVICE MANAGER; T. C. HACKER, MANIFOLD PROJECT ENGINEER, AND BOEING AND PAN-AMERICAN TECHNICIANS.

AFTER 650 HOURS SERVICE, CLOSE EXAMINATION WAS MADE IN RYAN'S ENGINEERING LABORATORY OF THE COMPARATIVE EFFECTS OF HIGH TEMPERATURE ON HEADERS CERAMIC COATED INSIDE AND OUT, HEADERS COATED ONLY ON THE INSIDE, HEADERS WITH NO COATING, AND HEADERS FABRICATED OF OTHER HEAT- AND CORROSION-RESISTANT ALLOYS.

THE RESULTS HAVE BEEN CONSIDERED ENCOURAGING ENOUGH TO MERIT PRODUCTION OF "B" AND "C" ROW CYLINDER HEADER ASSEMBLIES WITH CERAMIC COATING FOR THE BOEING 377's. MEANWHILE, SERVICE TESTS ARE CONTINUING, AND INSPECTION IS UNDER WAY ON CERAMIC-COATED HEADERS AND NON-COATED CONTROL HEADERS WHICH HAVE BEEN IN USE MORE THAN 1200 HOURS ON THE SAME PLANE.

THE HEADER WITH CERAMIC COATING INSIDE AND OUTSIDE, AFTER 1234 HOURS, WAS REVEALED TO BE ESSENTIALLY THE SAME AS WHEN EXAMINED AT 650 HOURS. IT WAS DETERMINED BY THICKNESS MEASUREMENTS AND SPECTROGRAPHIC ANALYSIS THAT THE CERAMIC COATING STILL IS IN EVIDENCE ON BOTH THE INNER AND OUTER SURFACES. THIS INDICATES THAT THE CERAMIC HAS OFFERED COMPLETE PROTECTION FOR THAT PERIOD OF TIME.

ADDITIONAL TESTS ARE BEING CONDUCTED ON AN AMERICAN AIRLINES CONVAIR 240, IN WHICH THE ENTIRE EXHAUST SYSTEMS OF BOTH ENGINES HAVE CERAMIC COATINGS, AND ON A PAN AMERICAN WORLD AIRWAYS BOEING 377, IN WHICH ONE ENGINE HAS THE COLLECTOR RING, AS WELL AS THE HEADER ASSEMBLIES, CERAMIC COATED.

THE PROBLEM OF HEAT RESISTANCE IS GREATEST IN THE HEADERS, WHICH COMPRISE THOSE PORTIONS OF THE MANIFOLD BOLTING DIRECTLY TO THE CYLINDER HEADS OF THE ENGINE. GASES ARE INTRODUCED FIRST INTO THE HEADERS BEFORE THEY PASS INTO THE COLLECTOR RINGS. EXHAUST GAS TEMPERATURES ARE MOST INTENSE IN THE HEADERS, COOLING SOMEWHAT WHEN THEY FLOW INTO THE COLLECTOR RINGS.

The first part of the document is a letter from the Secretary of the State to the Governor, dated the 1st day of January, 1862. The letter is addressed to the Governor and is signed by the Secretary of the State. The letter contains the following text:

Sir, I have the honor to acknowledge the receipt of your letter of the 29th inst. in relation to the application of the State of New York for the admission of the State of New York to the Union. I have the honor to inform you that the same has been referred to the Committee on the subject, and they have reported in favor of the admission of the State of New York to the Union. I have the honor to inform you that the same has been referred to the Committee on the subject, and they have reported in favor of the admission of the State of New York to the Union.

I have the honor to be, Sir, your obedient servant,

Secretary of the State

The second part of the document is a letter from the Governor to the Secretary of the State, dated the 1st day of January, 1862. The letter is addressed to the Secretary of the State and is signed by the Governor. The letter contains the following text:

Sir, I have the honor to acknowledge the receipt of your letter of the 29th inst. in relation to the application of the State of New York for the admission of the State of New York to the Union. I have the honor to inform you that the same has been referred to the Committee on the subject, and they have reported in favor of the admission of the State of New York to the Union. I have the honor to inform you that the same has been referred to the Committee on the subject, and they have reported in favor of the admission of the State of New York to the Union.

I have the honor to be, Sir, your obedient servant,

Governor

IN TODAY'S POWERFUL ENGINES, TEMPERATURE OF GASES IN THE HEADERS IS ABOVE 1900°F., COMPARED WITH TEMPERATURES RANGING FROM 1200° TO 1600° F. IN WORLD WAR II. GREATER HORSEPOWER AND HIGHER BACK PRESSURES THROUGH THE USE OF TURBO-SUPERCHARGERS ARE AMONG THE FACTORS RESPONSIBLE FOR PRODUCING TEMPERATURES EXCEEDING THE HEAT RESISTANCE OF SOME OF THE MOST EXPENSIVE ALLOYS.

UNDER SUCH CIRCUMSTANCES, THERE IS NEED FOR A HIGH HEAT RESISTANT BUT NON-STRATEGIC ALLOY TO START WITH. THE CERAMIC COATED HEADERS USED IN THE BOEING 377 ARE BUILT BY RYAN OF 19-9DL STEEL, AN ALLOY CONTAINING NICKEL, CHROMIUM, TANTALUM, TITANIUM, TUNGSTEN, COLUMBIUM AND MOLYBDENUM, A SUBSTANTIAL IMPROVEMENT OVER THE THICK CERAMIC COATED LOW CARBON STEEL SAE 1020 USED IN WORLD WAR II.

THE ENAMEL USED ON THIS ALLOY IS BASED ON NATIONAL BUREAU OF STANDARDS CERAMIC COATING A417, DESIGNED FOR JET ENGINE, GAS TURBINE AND OTHER HIGH TEMPERATURE APPLICATIONS. SPECIFIC PURPOSES OF THE ENAMEL, TO PREVENT OXIDATION, CARBON ABSORPTION AND CORROSION ATTACK HAVE BEEN BORNE OUT IN THE 650-HOUR AND 1200-HOUR TESTS UNDER ACTUAL SERVICE OPERATING CONDITIONS.

AT THE CONSIDERABLY HIGHER OPERATING TEMPERATURES OF PRESENT EXHAUST SYSTEMS, MUCH OF THE RAPID DETERIORATION OF UNPROTECTED HEADERS HAS BEEN DUE TO HIGH RATES OF CARBON ABSORPTION WITH RESULTING SURFACE EMBRITTLEMENT. ENAMELING PREVENTED THIS CARBON ABSORPTION, THUS GREATLY INCREASING THE LIFE OF THE HEADERS.

THERE WAS NO REDUCTION IN GAUGE THICKNESS (.045") ON THE HEADER COATED ON BOTH SIDES, INDICATING THAT THE CERAMIC COATING RETARDED CORROSION 100 PERCENT, AT LEAST OVER A 1234-HOUR PERIOD. AFTER 650 HOURS, ONLY A SLIGHT REDUCTION (TO .042"), DUE TO SCALING ON THE OUTSIDE, WAS NOTED ON THE HEADER WHICH WAS COATED ONLY ON THE INSIDE. NON-COATED HEADERS SHOWED SOME LOSS IN DIMENSIONAL THICKNESS WHEN USED 650 HOURS.

The first part of the report deals with the general situation of the country and the progress of the work done during the year. It is followed by a detailed account of the various projects and schemes undertaken, and a summary of the results achieved. The report concludes with a statement of the financial position and a list of the members of the committee.

The second part of the report deals with the various projects and schemes undertaken during the year. It is followed by a detailed account of the results achieved and a summary of the financial position. The report concludes with a list of the members of the committee.

The third part of the report deals with the various projects and schemes undertaken during the year. It is followed by a detailed account of the results achieved and a summary of the financial position. The report concludes with a list of the members of the committee.

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AFTER FABRICATION AND INSPECTION BY RYAN, HEADERS NOW IN PRODUCTION FOR THE BOEING 377 ARE SHIPPED TO THE CALIFORNIA METAL ENAMELING CO., LOS ANGELES, FOR THE CERAMIC COATING PROCESS. ALL PARTS ARE SANDBLASTED TO PROVIDE A UNIFORM FINISH. CARE IS TAKEN TO ASSURE THAT THE SURFACES ARE FREE OF ALL CONTAMINATION SO THAT THE CERAMIC COATING WILL HAVE A MAXIMUM BOND WITH THE METAL.

SLIP JOINTS BETWEEN THE HEADER SECTIONS ARE MADE OF ALLOYS WITH AN EXTREMELY HIGH OXIDATION RESISTANCE. THEY MUST BE KEPT FREE FROM CERAMIC COATING WHERE THE PARTS ARE SLIPPED TOGETHER. A CLAY SOLUTION IS APPLIED BY BRUSH TO MASK THESE PORTIONS. HAVING NO BOND WITH THE STEEL DURING THE FIRING PROCESS, THE CLAY CONVENIENTLY SHATTERS ITSELF OFF WHEN THE PARTS COOL. THE AREAS COATED BEFORE DIPPING ARE LEFT FREE FOR JOINING PURPOSES.

AFTER ANY NECESSARY MASKING, THE HEADERS ARE HUNG ON A CONVEYOR WHICH TAKES THEM TO THE DIPPER WHO DIPS THE PARTS IN A SPECIAL CERAMIC COATING A417 "SLIP" WHICH, IN TEXTURE, IS SIMILAR TO THIN WET CLAY.

IN MAKING THE SLIP, CALIFORNIA ENAMELING USES A SPECIAL "FRIT 331", BASED ON A BUREAU OF STANDARDS FORMULA. A "FRIT" IS THE GRAVEL-LIKE MATERIAL THAT RESULTS FROM MELTING RAW MATERIALS TO FORM A TYPE OF GLASS, AND POURING THE MOLTEN GLASS INTO COLD WATER TO SHATTER IT. THEN THE "FRIT" AND OTHER MILL MATERIALS ARE GROUND TO A POWDER-LIKE CONSISTENCY AND WATER IS ADDED TO HOLD THE MATERIALS IN SUSPENSION.

AFTER THE DIPPING PROCESS, THE "SLIP" IS DRAINED FROM THE HEADERS, LEAVING AN EXTREMELY THIN COATING, OF APPROXIMATELY .0015" THICKNESS ON BOTH INTERIOR AND EXTERIOR. THE PARTS THEN ARE BEADED TO REMOVE ANY BUILD-UP OF CERAMIC COATING ALONG THE DOWNWARD EDGE.

ANOTHER CONVEYOR CARRIES THE HEADERS TO FIRING IN A SPECIAL HIGH-TEMPERATURE, V-BOTTOM FURNACE, 12 FEET LONG, 5 FEET WIDE AND 4 FEET HIGH. THE PARTS ARE HUNG FROM HEAVY INCONEL HOOKS AND FRAMES, AND FIRED FOR APPROXIMATELY 12 MINUTES AT 1850° F. ACCURATELY CONTROLLED AS TO HEAT AND TIME.

The first part of the document is a letter from the Secretary of the  
 Department of the Interior to the Commissioner of the General Land Office.  
 The letter is dated at Washington, D. C., this 1st day of January, 1900.  
 It is addressed to the Commissioner of the General Land Office, and  
 is in reply to a letter from the Commissioner of the General Land Office,  
 dated at Washington, D. C., the 27th day of December, 1899.  
 The letter contains the following text:

Sir: I have the honor to acknowledge the receipt of your letter of the  
 27th inst., and in reply to inform you that the same has been forwarded  
 to the proper authorities for their consideration. I am, however,  
 unable to say at this time whether or not the same will be granted.  
 I am, Sir, very respectfully,  
 Yours very truly,  
 J. M. [Name]

The second part of the document is a report from the Commissioner of the  
 General Land Office to the Secretary of the Department of the Interior.  
 The report is dated at Washington, D. C., this 1st day of January, 1900.  
 It is addressed to the Secretary of the Department of the Interior, and  
 contains the following text:

Sir: I have the honor to acknowledge the receipt of your letter of the  
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 I am, Sir, very respectfully,  
 Yours very truly,  
 J. M. [Name]

WHEN THE PARTS ARE REMOVED FROM THE FURNACE AND ALLOWED TO COOL AT ROOM TEMPERATURE, THE CLAY MASKING SHATTERS FROM THE COATED SLIP JOINT AND FLANGE SURFACES. THE OTHER PORTIONS HAVE A SMOOTH, GREEN ENAMELED SURFACE.

THE NOMINALLY HIGHER COST OF CERAMIC COATED HEADERS WILL BE MORE THAN ABSORBED BY EXTENDING THE LIFE OF THE EXHAUST SYSTEM, IT IS REASONABLE TO BELIEVE FROM THE RESULTS OF THE TESTS TO DATE.

MUCH RESEARCH IS BEING CONDUCTED BY INDUSTRY, TECHNICAL SCHOOLS AND BY THE AIR FORCE ON USE OF CERAMIC MATERIALS FOR VARIOUS APPLICATIONS. IN ADDITION TO EXHAUST SYSTEMS, THESE INCLUDE COMBUSTION CHAMBER LINERS, ROTOR BUCKETS AND STATOR BLADES FOR GAS TURBINES; ROCKET MOTOR COMPONENTS; WALLS OF RAMJET AND PULSE-JET ENGINES, HEAT EXCHANGERS, AND COATINGS FOR SKINS OF SUPERSONIC VEHICLES.

AT RYAN, THE KEY MEN IN OPERATION CERAMICS, ARE FOUSHEE; HACKER; WILSON G. HUBBELL, CHIEF METALLURGIST; AND RALPH HAVER, MANIFOLD DESIGN SPECIALIST.

ADDITIONAL STUDY IS INEVITABLE BEFORE EVEN THE PARTIAL POTENTIALITIES OF CERAMIC MATERIALS ARE REALIZED. MEANTIME, THIS CENTURIES-OLD ART IS BEING PUT TO PRACTICAL USE ON SUCH PROJECTS AS RYAN'S EXHAUST COLLECTOR SYSTEMS FOR THE BOEING 377 STRATOCRUISER, AND ON FUTURE EXHAUST SYSTEMS FOR BOEING B-50 BOMBERS AND C-97 MILITARY TRANSPORTS.

The first part of the document is a letter from the Secretary of the State to the Governor.

The second part is a report on the condition of the State for the year 1880.

The third part is a report on the condition of the State for the year 1881.

The fourth part is a report on the condition of the State for the year 1882.

The fifth part is a report on the condition of the State for the year 1883.

The sixth part is a report on the condition of the State for the year 1884.

The seventh part is a report on the condition of the State for the year 1885.

The eighth part is a report on the condition of the State for the year 1886.

The ninth part is a report on the condition of the State for the year 1887.

The tenth part is a report on the condition of the State for the year 1888.

The eleventh part is a report on the condition of the State for the year 1889.

The twelfth part is a report on the condition of the State for the year 1890.

The thirteenth part is a report on the condition of the State for the year 1891.

The fourteenth part is a report on the condition of the State for the year 1892.

The fifteenth part is a report on the condition of the State for the year 1893.

The sixteenth part is a report on the condition of the State for the year 1894.

The seventeenth part is a report on the condition of the State for the year 1895.

The eighteenth part is a report on the condition of the State for the year 1896.

The nineteenth part is a report on the condition of the State for the year 1897.

The twentieth part is a report on the condition of the State for the year 1898.

The twenty-first part is a report on the condition of the State for the year 1899.

The twenty-second part is a report on the condition of the State for the year 1900.

The twenty-third part is a report on the condition of the State for the year 1901.

The twenty-fourth part is a report on the condition of the State for the year 1902.

The twenty-fifth part is a report on the condition of the State for the year 1903.

The twenty-sixth part is a report on the condition of the State for the year 1904.

The twenty-seventh part is a report on the condition of the State for the year 1905.

The twenty-eighth part is a report on the condition of the State for the year 1906.

The twenty-ninth part is a report on the condition of the State for the year 1907.

The thirtieth part is a report on the condition of the State for the year 1908.





## NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

### TIME-SAVING SAND

THE SAND WHICH FILTERS DOWN THE HOURGLASS OF PRODUCTION IS BUYING MORE TIME AT RYAN AERONAUTICAL COMPANY TODAY.

SAND IS A TIME FACTOR IN AN AIRCRAFT PLANT, AND AT RYAN, TIME IS BEING SAVED SINCE A SWITCH WAS MADE IN THE TYPE OF SAND USED IN SANDBLASTING OPERATIONS.

FOR YEARS, A WHITE SILICA SAND WAS UTILIZED IN THE HIGH PRESSURE BLASTING THAT CLEANSSES METAL PARTS. THESE SAND PARTICLES DETERIORATED RAPIDLY, AND A FINE DUST, OF NO FURTHER USE IN THE SANDBLASTING, WAS CREATED.

IT WAS DISCOVERED THAT A REDDISH GARNET SAND QUARRIED FROM A MOUNTAIN SIDE AT FERNWOOD, IDAHO, HAD 50 PERCENT BETTER "STAYING" POWERS THAN THE SILICA SAND. RYAN WAS ONE OF THE FIRST AIRCRAFT PLANTS IN THE WEST TO EXPERIMENT, SUCCESSFULLY, WITH THIS MATERIAL ON A LARGE SCALE. TONS ARE USED ANNUALLY.

THE GARNET MINERAL BASE PROVIDES A MUCH MORE ABRASIVE MATERIAL THAN THE SILICA, ACCORDING TO RAY ORTIZ, MANIFOLD AND FABRICATION SUPERINTENDENT AT RYAN.

"IT TAKES ONLY HALF AS LONG TO SANDBLAST A PART, AND WITH LESS AIR PRESSURE," HE SAYS. "THE PARTICLES DON'T PULVERIZE AS EASILY, AND WE'RE NOT BOTHERED WITH THE POWDER CREATED BY SILICA SAND, INTERFERING WITH VISIBILITY."

AN EXAMINATION OF GARNET SAND CRYSTALS AFTER SOME USE SHOWS THAT WHEN THEY DO BREAK DOWN THEY RETAIN THEIR SHARP FEATURES AND THE CUTTING QUALITIES SO NECESSARY IN SANDBLASTING. IN CONTRAST, THE SILICA SAND DISINTEGRATES INTO "ROUND" CRYSTALS OF NO FURTHER VALUE IN CUTTING ACTION.

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THUS, ALTHOUGH GARNET SAND IS MORE EXPENSIVE THAN SILICA SAND, IT LASTS MUCH LONGER AND DOES THE JOB FASTER. A CONSIDERABLE SAVING IS EFFECTED.

ON TWO EIGHT-HOUR SHIFTS, THE SANDBLASTING MACHINES HAD TO BE LOADED AT LEAST SIX TIMES WITH SILICA SAND. NOW, THE MACHINES NEED BE FILLED ONLY TWICE, ONCE FOR EACH SHIFT.

LESS RESIDUE ALSO MEANS LESS OF A PROBLEM IN THE TRUCKING AWAY OF WASTE MATERIAL.

AND IN RAINY WEATHER, GARNET SAND, WHICH IS MORE MOISTURE-RESISTANT THAN SILICA SAND, WON'T CLOG UP AS EASILY IN THE MOIST ATMOSPHERE. ITS FLOW INTO THE SANDBLASTING MACHINES IS UNINTERRUPTED.

SANDBLASTING IS PERFORMED AT RYAN TO CLEAN STAINLESS STEEL EXHAUST SYSTEM PARTS AND PERMIT THOROUGH INSPECTION. BY USE OF A NEW INDUSTRIAL ABRASIVE, RYAN IS PROVING THAT SAND CAN BUY VALUABLE PRODUCTION TIME.

3-12-51K





# NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

SIX-DAY WEEK SCHEDULED

FOR RYAN AIRCRAFT WORKERS

ALL RYAN AERONAUTICAL COMPANY WORKERS WILL GO ON A SIX-DAY 48-HOUR WEEK STARTING MONDAY (APRIL 30) TO SPEED WORK ON AN INCREASING VOLUME OF MILITARY AIRCRAFT CONTRACTS, COMPANY OFFICIALS HAVE ANNOUNCED. NEARLY 3000 ARE NOW EMPLOYED AT RYAN IN THE AIRPLANE AND METAL PRODUCTS DIVISIONS.

SOME OF RYAN'S PRODUCTION DEPARTMENTS HAVE BEEN WORKING A SIX-DAY WEEK SINCE LAST NOVEMBER, BUT NOW THE ENTIRE PLANT GOES ON A 48-HOUR WEEK. THOUGH THE ADDITIONAL 8 HOURS IN THE WORK WEEK WILL, IN EFFECT, ADD SEVERAL HUNDRED EXPERIENCED WORKERS TO THE PRESENT PAYROLL, THIS WILL ONLY PARTIALLY SOLVE THE PROBLEM OF BRINGING THE NECESSARY ADDITIONAL WORKERS INTO PRODUCTION DEPARTMENTS AT RYAN.

SKILLED WORKERS OF ALMOST ALL CLASSES ARE PARTICULARLY NEEDED AT THIS TIME, J. W. BUNNELL, PERSONNEL MANAGER, SAID. DESPITE THE INCREASED MAN-HOURS RESULTING FROM THE LONGER WORK WEEK RYAN IS SCHEDULED TO ADD AT LEAST 300 ADDITIONAL WORKERS IN THE NEXT THREE MONTHS.

RYAN PRODUCTS INCLUDE IMPORTANT ITEMS FOR THE MILITARY SERVICES ON WHICH CONSTANTLY INCREASING PRODUCTION RATES ARE BEING REQUIRED. SEVERAL OF THE LARGEST CONTRACTS REQUIRE HEAVY MANUFACTURING SCHEDULES ALREADY RUNNING MORE THAN TWO YEARS INTO THE FUTURE. INCLUDED IN CURRENT CONTRACTS ARE RYAN JET-PROPELLED PILOTLESS AIRCRAFT, HUGE FUSELAGE ASSEMBLIES FOR MILITARY TRANSPORT PLANES, SPECIAL TYPE FUEL TANKS, NUMEROUS AIRCRAFT PARTS AND ASSEMBLIES, JET ENGINE COMPONENTS AND STAINLESS STEEL EXHAUST SYSTEMS, HEAT EXCHANGERS AND ALLIED PRODUCTS FOR NEARLY EVERY MAJOR AMERICAN AIRCRAFT COMPANY.



# NEWS BUREAU • TYAN AERONAUTICAL COMPANY

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# NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

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RYAN AERONAUTICAL CO. TO

PAY 10¢ QUARTERLY DIVIDEND

A QUARTERLY DIVIDEND OF 10¢ PER SHARE HAS BEEN  
DECLARED BY THE BOARD OF DIRECTORS OF THE RYAN  
AERONAUTICAL COMPANY, PAYABLE JUNE 12, 1951, TO  
STOCKHOLDERS OF RECORD AS OF MAY 22, 1951.

5-1-51W

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NEWS BUREAU & RYAN AERONAUTICAL COMPANY

BILL WAGNER

LINDSAY FIELD & SAN DIEGO, CALIF.

BOB SMITH HAROLD VERN

TO THE DIRECTOR  
NAVY DEPARTMENT

RE: [Faint text, possibly a report title]

1954



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FOR RELEASE  
MONDAY, MAY 7

## NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

RYAN TO BUILD NEW FACTORY

BLDG. FOR JET PARTS MFG.

RYAN AERONAUTICAL COMPANY, SAN DIEGO, THIS WEEK STARTED CONSTRUCTION OF A 75,000 SQ. FT. ADDITION TO ITS MANUFACTURING FACILITIES, T. CLAUDE RYAN, PRESIDENT, ANNOUNCED TODAY. THE FACTORY BUILDING IS BEING ERECTED ADJACENT TO THE COMPANY'S LARGE FINAL AND SUB-ASSEMBLY BUILDINGS ON LINDBERGH FIELD.

THE NEW \$300,000 BUILDING WILL PROVIDE NEEDED PRODUCTION SPACE FOR FURTHER EXPANSION OF RYAN'S ALREADY LARGE JET ENGINE COMPONENTS MANUFACTURING PROGRAM.

WITH THE COMPLETION OF ITS NEW JET ENGINE PARTS FACTORY BUILDING, RYAN PLANT SPACE WILL BE INCREASED TO APPROXIMATELY THREE-QUARTERS OF A MILLION SQUARE FEET. THE NEW BUILDING, OF STEEL AND STUCCO CONSTRUCTION, WILL BE 250-BY-300 FEET. IT WILL BE LOCATED AT THE WEST END OF THE COMPANY'S 40-ACRE PLANT SITE.

PRESENT PLANS CALL FOR THE NEW FACTORY TO BE USED EXCLUSIVELY FOR THE MANUFACTURE OF COMBUSTION CHAMBERS, EXHAUST CONES, TAILPIPES, EXHAUST NOZZLES, AFTERBURNERS AND OTHER PRECISION-BUILT STAINLESS STEEL COMPONENTS FOR JET ENGINES. WHILE THE LARGEST CURRENT PRODUCTION IS FOR THE GENERAL ELECTRIC JET ENGINES, RYAN ALSO MANUFACTURES JET ENGINE PARTS FOR PRATT & WHITNEY, WESTINGHOUSE, ALLISON, WRIGHT AERONAUTICAL AND OTHERS.

MORE THAN \$2,000,000 WORTH OF NEW PRODUCTION MACHINERY AND OTHER EQUIPMENT, EXCLUSIVE OF SPECIAL TOOLING AND FIXTURES, WILL BE INSTALLED IN THE NEW BUILDING.



# NEWS BUREAU & RYAN AERONAUTICAL COMPANY

300 NEW YORK AVENUE, NEW YORK, N. Y.      LINDENBUSH FIELD - SAWING AND CUTTING

REPLY TO THIS OFFICE  
BY MAIL OR TELEPHONE

THE NEWS BUREAU & RYAN AERONAUTICAL COMPANY  
is a leading authority in the field of aeronautical  
news and information. We have a staff of  
experienced writers and editors who are  
able to provide you with the latest news  
and information on all aspects of aviation.

Our news service is available to you  
through a variety of channels. We can  
provide you with a daily news service,  
or we can provide you with a weekly  
news service. We can also provide you  
with a monthly news service.

We are also able to provide you with  
special reports on a variety of topics.  
These reports are written by our  
experienced writers and are of high  
quality. We can provide you with  
reports on a variety of topics, including  
aviation, space, and defense.

If you are interested in our news  
service, please contact us at once.  
We will be glad to provide you with  
more information on our services and  
pricing.

ADDITIONAL PRECISION MACHINING EQUIPMENT, HEAVY PRESSES, EXTENSIVE WELDING EQUIPMENT, ANNEALING OVENS AND OTHER FACILITIES FOR STAINLESS STEEL FABRICATION ARE INCLUDED.

IN ADDITION TO THE NEW JET PARTS FACTORY BUILDING, RYAN ALSO HAS UNDER CONSTRUCTION A 14,000 SQ. FT. HANGAR-WAREHOUSE TO PROVIDE NEEDED FACILITIES FOR RYAN NAVION EXECUTIVE-LIAISON PLANE SERVICE AND SPARE PARTS DEPARTMENTS. THE NEW STRUCTURES ARE BEING BUILT BY TREPTE CONSTRUCTION COMPANY WITH STRUCTURAL STEEL FURNISHED BY THE NATIONAL STEEL AND SHIPBUILDING COMPANY. BOTH ARE SAN DIEGO FIRMS.

THE NAVION HANGAR-WAREHOUSE IS DUE FOR COMPLETION THE END OF MAY, WHILE THE JET PARTS FACTORY BUILDING IS SCHEDULED TO BE READY FOR USE LATE THIS SUMMER.

5-4-51W

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author details the various methods used to collect and analyze the data. This includes both manual and automated processes. The goal is to ensure that the data is as accurate and comprehensive as possible.

The third part of the document focuses on the results of the analysis. It shows that there is a clear trend in the data, which is consistent with the initial hypothesis. This finding is significant as it provides strong evidence for the proposed model.

Finally, the document concludes with a summary of the findings and some recommendations for future research. It suggests that further studies should be conducted to explore the underlying causes of the observed trends.

OVERTIME SATURDAY WORK AT RYAN AERONAUTICAL COMPANY, WHERE THE ENTIRE PLANT HAS RECENTLY BEEN WORKING A SIXTH DAY, WILL BE REDUCED THIS WEEK, COMPANY OFFICIALS SAID TODAY. HOWEVER, NEARLY HALF OF THE PRODUCTION WORKERS WILL CONTINUE ON A 48-HOUR WORK WEEK.

IN ANNOUNCING THE RESCHEDULING OF OVERTIME WORK, IT WAS POINTED OUT THAT REQUIRED APPROVALS OF THE AGENCIES CONCERNED FOR A SIX-DAY WORK WEEK FOR THE ENTIRE PLANT WERE NOT RECEIVED.

5-15-51W

Faint, illegible text, possibly bleed-through from the reverse side of the page.





MAILING OUT: 5-18-51  
AVIATION MAGS 1 & 2  
FINANCIAL RED  
TECHNICAL RED  
*Laure (Fred Keen, Al Wiese, Norm Bell)*

FOR IMMEDIATE  
RELEASE

# NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

## RYAN METAL PRODUCTS ORDERS

BOOSTED BY \$3,500,000

NEW ORDERS OF MORE THAN \$3,500,000 FOR JET ENGINE COMPONENTS AND EXHAUST SYSTEMS HAVE BEEN RECEIVED BY RYAN AERONAUTICAL COMPANY IN RECENT WEEKS. THIS WAS REPORTED BY T. CLAUDE RYAN, PRESIDENT, JUST PRIOR TO HIS DEPARTURE OVER THE WEEK-END TO ATTEND MEETINGS OF THE BOARD OF GOVERNORS OF THE AIRCRAFT INDUSTRIES ASSN. IN WASHINGTON AND TO CONFER WITH MILITARY OFFICIALS.

THE ENTRY OF AUTOMOBILE MANUFACTURERS INTO PRODUCTION OF AIRCRAFT ENGINES FOR THE EXPANDED NATIONAL MILITARY REQUIREMENTS WAS REFLECTED IN AN ORDER RYAN HAS RECEIVED FROM FORD MOTOR COMPANY FOR EXHAUST SYSTEMS FOR WASP MAJOR ENGINES. FORD WILL BUILD THE "4360" FOUR-ROW 28-CYLINDER PISTON ENGINE UNDER LICENSE FROM PRATT & WHITNEY.

OTHER ENGINE COMPANIES PLACING ADDITIONAL JET ENGINE AND EXHAUST SYSTEM ORDERS WITH RYAN INCLUDED GENERAL ELECTRIC, CONTINENTAL, WESTINGHOUSE AND PRATT & WHITNEY. THE EXHAUST SYSTEMS BEING BUILT FOR CONTINENTAL ARE FOR USE IN M-46 PATTON COMBAT TANKS.

NEW ORDERS FOR TRANSPORT PLANE EXHAUST EQUIPMENT CAME FROM THE DOUGLAS, BOEING AND FAIRCHILD AIRCRAFT COMPANIES.

THE ADDITIONAL JET ENGINE BUSINESS IS BEING RECEIVED BY RYAN AS WORK GETS UNDER WAY ON THE COMPANY'S NEW 75,000 SQ. FT. JET ENGINE PARTS FACTORY BUILDING ADJOINING THE FINAL AND SUB-ASSEMBLY BUILDINGS. D. H. PALMER, PLANT ENGINEER, REPORTS THAT SEWER AND UTILITIES LINES ARE BEING COMPLETED AND FOOTINGS POURED THIS WEEK, BUT THAT NOT MUCH STRUCTURE ABOVE GROUND WILL BEGIN GOING UP UNTIL LATER THIS MONTH.

HEWLETT & KRYAN LABORATORIAL COMPANY

LABORATORY SUPPLY DIVISION

1000 AVENUE OF THE STARS  
SUNNYVALE, CALIFORNIA 94086

MEMORANDUM FOR THE RECORD

TO: [Illegible]

FROM: [Illegible]

SUBJECT: [Illegible]

[The following text is extremely faint and largely illegible. It appears to be a memorandum detailing a project or process, possibly related to laboratory equipment or procedures. Key words like 'equipment', 'specifications', and 'requirements' are faintly visible.]

THE \$3,500,000 IN NEW CONTRACTS RECEIVED BY RYAN IS EXCLUSIVE OF INCREASES IN ORDERS CONSTANTLY BEING RECEIVED FOR AIRFRAME COMPONENTS. AFT FUSELAGE SECTIONS FOR MILITARY TRANSPORT PLANES, HUGE EXTERNAL FUEL TANKS FOR LONG-RANGE BOMBERS, CARGO DOORS, FLOOR BEAMS AND OTHER COMPONENTS ARE NOW BEING DELIVERED IN STEADY VOLUME FROM RYAN ASSEMBLY LINES.

5-17-51W

Faint, illegible text at the top of the page, possibly a header or introductory paragraph.



MAILING OUT: 5-18-51  
AVIATION MAGAZINES 1 & 2  
FINANCIAL RED  
LOCAL PAPERS: 5-21-51

## NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

### RYAN EXPANDS DAYTON OFFICE TO SERVE MIDWEST CUSTOMERS

OPENING OF AN OFFICE IN THE THIRD NATIONAL BUILDING, DAYTON, OHIO, TO SERVE THE MIDDLE WEST TERRITORY IS ANNOUNCED BY RYAN AERONAUTICAL COMPANY, SAN DIEGO.

A FULL-FLEDGED OFFICE IS NEEDED TO ACCOMMODATE RYAN'S RAPIDLY EXPANDING BUSINESS, PARTICULARLY IN THE METAL PRODUCTS FIELD, FOR COMPONENT PARTS OF JET AND PISTON ENGINES, SAM C. BREDER, CUSTOMER SERVICE DIRECTOR, EXPLAINED.

JOHN ATHA, WHO HAS BEEN RYAN'S MIDDLE WEST FIELD REPRESENTATIVE DURING THE LAST YEAR, WILL BE IN CHARGE OF THE DAYTON OFFICE, ASSISTED BY RICHARD J. OFFENBERG, WHO HAS JUST JOINED THE RYAN ORGANIZATION AFTER 9 YEARS WITH CURTISS-WRIGHT CORP. AND NORTH AMERICAN AVIATION, INC. IN COLUMBUS, OHIO. OFFENBERG, 34, A GRADUATE OF OHIO STATE UNIVERSITY WITH A BACHELOR OF SCIENCE DEGREE, WAS SUPERVISOR OF ESTIMATING FOR CURTISS WRIGHT'S AIRPLANE DIVISION AND WITH NORTH AMERICAN WHEN THE LATTER TOOK OVER THE COLUMBUS PLANT LAST NOVEMBER.

THE DAYTON OFFICE WILL SERVICE THE AREA EXTENDING AS FAR WEST AS ST. LOUIS AND AS FAR EAST AS BUFFALO, NEW YORK. IT WILL INCLUDE THE DETROIT REGION, AGAIN BECOMING INCREASINGLY IMPORTANT TO AIRCRAFT PRODUCTION. RYAN'S CLOSE LIAISON WITH AIR FORCE MATERIEL COMMAND HEADQUARTERS AT WRIGHT FIELD, DAYTON, ON PRIME AIRPLANE CONTRACTS AS WELL AS METAL PRODUCTS WORK, WILL BE CONTINUED THROUGH THE NEW OFFICE.



# NEWS BUREAU - RYAN AERONAUTICAL COMPANY

1000 BROADWAY, NEW YORK, N.Y. 10018

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## TELETYPE UNIT

TO: DIRECTOR, NEW YORK OFFICE  
FROM: SAC, NEW YORK OFFICE  
SUBJECT: [Illegible]

[Illegible teletype message body text]

END

[Illegible teletype message body text]

END

END



MAILING OUT: 6-8-51  
AVIATION MAGS 1 & 2  
TECHNICAL RED  
FINANCIAL RED (PIX TO FOR RELEASE  
LOCAL PAPERS SELEC.) SUNDAY, JUNE 10

## NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

### RYAN GETS MULTI-MILLION DOLLAR

#### ORDER FOR PODS FOR KC-97 TANKERS

A MULTI-MILLION DOLLAR CONTRACT FOR REFUELING PODS FOR BOEING KC-97 FLYING TANKERS HAS BEEN RECEIVED BY RYAN AERONAUTICAL COMPANY, T. CLAUDE RYAN, PRESIDENT, REVEALED TODAY. THE RYAN ANNOUNCEMENT WAS ISSUED CONCURRENT WITH A STATEMENT BY BOEING AIRPLANE COMPANY THAT ADDITIONAL STRATOFREIGHTERS NOW BEING BUILT FOR THE THE U. S. AIR FORCE WILL BE QUICKLY CONVERTIBLE FOR SERVICE EITHER AS TRANSPORTS OR AERIAL TANKERS.

"DELIVERIES OF REFUELING PODS HAVE ALREADY BEGUN," RYAN SAID, "AND ARE SCHEDULED TO CONTINUE THROUGH 1952. FOR SEVERAL YEARS RYAN AERONAUTICAL COMPANY HAS BEEN BUILDING THE AFT FUSELAGE SECTION AND CARGO DOORS FOR THE C-97, SINCE THE PODS IN THE FLYING TANKER VERSION ARE DESIGNED TO REPLACE THE CARGO DOORS, RYAN WAS THE LOGICAL SOURCE TO ALSO SUPPLY THIS EQUIPMENT. PRODUCTION OF THE PODS HAS BEEN GREATLY SPEEDED BECAUSE OF THE CLOSE TOOLING COORDINATION WHICH HAS BEEN POSSIBLE."

THE BOOM-OPERATOR'S POD IS DESIGNED TO FIT EXACTLY INTO THE OPENING MADE BY REMOVAL OF THE TRANSPORT'S REAR CLAMHELL CARGO DOORS. IT REQUIRES ONLY SIX HOURS TO CHANGE THE DOUBLE-DECK MILITARY TRANSPORT FROM ITS MORE-NORMAL ROLE AS TROOP OR CARGO CARRIER TO A FLYING BOOM TANKER. PRODUCTION MODELS OF THE DUAL-PURPOSE C-97'S WILL LEAVE THE BOEING SEATTLE PLANT AS TANKERS BUT WILL CARRY COMPLETE TRANSPORT CONVERSION KITS INCLUDING THEIR RYAN-BUILT CARGO DOORS, SEATS AND OTHER EQUIPMENT.



# NEWS BUREAU OF THE AERONAUTICAL COMPANY

LINDBERGH FIELD - SAN DIEGO, CALIF.

FOR NEWS SERVICE FORM 100  
1934

MEMORANDUM FOR THE DIRECTOR

DATE: 10/15/34

RE: [Illegible text]

[Illegible text]

[Illegible text]

[Illegible text]



WITH ONE AIRPLANE ABLE TO SERVE THE TWO FUNCTIONS OF TRANSPORT AND TANKER, THE AIR FORCE WILL BE ABLE TO DO BOTH JOBS WITH FEWER PLANES, SAVING ON INITIAL COST, UPKEEP AND MANPOWER.

THE SELF-CONTAINED ELECTRIC MONORAIL HOIST OF THE C-97 IS USED TO RAISE AND LOWER THE INTERCHANGEABLE POD AND CARGO DOOR UNITS, PERMITTING CHANGEOVERS TO BE MADE VIRTUALLY ANYWHERE UNDER FIELD SERVICE OPERATING CONDITIONS.

6-7-51W

Faint, illegible text at the top of the page, possibly a header or introductory paragraph.

For Release  
Tuesday, June 26**NEWS BUREAU • RYAN AERONAUTICAL COMPANY**

BILL WAGNER

BOB SMITH HAROLD KEEN

**LINDBERGH FIELD • SAN DIEGO 12, CALIF.**

## RYAN AERONAUTICAL BUILDING

## COMPLETE ROCKET MOTORS

Expanding the scope of its operations in the manufacture of rocket engine components, Ryan Aeronautical Company has recently been awarded a contract by Douglas Aircraft Company to produce a small number of complete rocket motors for a surface-to-surface missile under development.

According to Ryan production experts, long experienced in building the "hot end" of jet and piston engines, the rocket motor for the surface-to-surface missile presents new problems in forming and welding heavy gauge materials.

The outer shell and other sheet metal portions are drop-hammer stamped to very close tolerance. Both arc and electric resistance welding processes are used, and furnace brazing is also employed. Certain of the major components of the motor are precision machined from solid stainless steel billets.

The missile is a project of the Army Ordnance Corps and its development is under the direction of the Jet Propulsion Laboratory of Caltech.

6/25/51W



NEWS BUREAU & RYAN AERONAUTICAL COMPANY

414 W. 23rd St.  
New York, N.Y.

LINDBERGH FIELD - SAN DIEGO 15, CALIF.

THE BUREAU OF AERONAUTICS  
OFFICE OF THE CHIEF ENGINEER  
WASHINGTON, D.C.

Enclosed are two copies of the report of the  
board of inquiry on the crash of the Spirit of St. Louis  
at Lindbergh Field, San Diego, California, on May 20, 1931.  
One copy of the report is being furnished to the  
Department of Commerce, Bureau of Aeronautics,  
Washington, D.C. One copy of the report is being  
furnished to the Department of the Army, Office of  
the Chief of Engineers, Washington, D.C. One copy  
of the report is being furnished to the Department  
of the Navy, Bureau of Aeronautics, Washington,  
D.C. One copy of the report is being furnished  
to the Department of the Interior, Bureau of  
Aeronautics, Washington, D.C. One copy of the  
report is being furnished to the Department of  
War, Bureau of Aeronautics, Washington, D.C.  
One copy of the report is being furnished to the  
Department of Justice, Bureau of Aeronautics,  
Washington, D.C. One copy of the report is  
being furnished to the Department of Education,  
Bureau of Aeronautics, Washington, D.C. One  
copy of the report is being furnished to the  
Department of the Interior, Bureau of Aeronautics,  
Washington, D.C. One copy of the report is  
being furnished to the Department of War, Bureau  
of Aeronautics, Washington, D.C. One copy of  
the report is being furnished to the Department  
of the Navy, Bureau of Aeronautics, Washington,  
D.C. One copy of the report is being furnished  
to the Department of the Interior, Bureau of  
Aeronautics, Washington, D.C. One copy of the  
report is being furnished to the Department of  
War, Bureau of Aeronautics, Washington, D.C.  
One copy of the report is being furnished to  
the Department of Justice, Bureau of Aeronautics,  
Washington, D.C. One copy of the report is  
being furnished to the Department of Education,  
Bureau of Aeronautics, Washington, D.C.

1931



MAILING OUT: 7-10-51  
LOCAL PAPERS, AP & UP  
AVIATION MAGS 1 & 2  
TECH. RED, FINAN. RED

FOR RELEASE  
THURSDAY  
JULY 12TH

## NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

\$8,000,000 IN JET ORDERS BOOST

RYAN BACKLOG TO FORTY MILLION

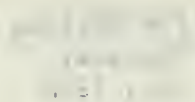
NEW ORDERS TOTALING \$8,000,000 FOR JET ENGINE COMPONENTS WERE RECEIVED BY RYAN AERONAUTICAL COMPANY DURING THE FIRST WEEK OF JULY, T. CLAUDE RYAN, PRESIDENT ANNOUNCED TODAY.

THE NEW BUSINESS, WHICH BRINGS THE COMPANY'S BACKLOG OF UNFILLED ORDERS TO OVER 40 MILLION DOLLARS, WAS PLACED BY GENERAL ELECTRIC COMPANY AND THE WRIGHT AERONAUTICAL CORP.

ALREADY IN LARGE SCALE PRODUCTION OF MANY COMPONENTS FOR THE "HOT END" OF GENERAL ELECTRIC J-47 JET ENGINES, RYAN WILL FURTHER INCREASE ITS DELIVERY OF EXHAUST CONES, COMBUSTION CHAMBERS, EXHAUST NOZZLES, TRANSITION LINERS, AFT FRAMES AND OTHER PARTS FOR LATEST MODELS OF THE J-47 ENGINE.

FOR WRIGHT AERONAUTICAL CORP., RYAN IS SCHEDULED TO GO INTO VOLUME PRODUCTION OF EXHAUST CONES FOR THE 7200-POUND-THRUST J-65, AMERICANIZED VERSION OF THE FAMOUS ARMSTRONG SIDDELEY SAPPHIRE JET ENGINE, ORIGINALLY DEVELOPED IN ENGLAND.

WRIGHT AERONAUTICAL, NEWEST PISTON-ENGINE MANUFACTURER TO ENTER THE JET FIELD, IS UNDERTAKING ONE OF THE GREATEST SUB-CONTRACTING PROGRAMS IN THE COUNTRY TODAY TO PUT THE POWERFUL J-65 INTO MASS PRODUCTION. SOME OF RYAN'S TOP TECHNICAL PEOPLE AND CUSTOMER SERVICE REPRESENTATIVES HAVE BEEN WORKING CLOSELY WITH WRIGHT AT ITS WOOD-RIDGE, N. J. PLANT IN CONNECTION WITH THE CONVERSION OF THE ENGLISH SAPPHIRE ENGINE TO AMERICAN PRODUCTION STANDARDS.



1111 11th St. N.W.  
Washington, D.C. 20004  
Telephone: (202) 462-1111



# NEWS BUREAU & EYE & AERONAUTICAL COMPANY

1111 11th St. N.W. WASHINGTON, D.C. 20004

FOR SALES: (202) 462-1111  
FOR ADVERTISING: (202) 462-1111

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The News Bureau & Eye & Aeronautical Company is a leading provider of news and information services. Our services include news coverage, editorial services, and distribution services. We are committed to providing high-quality news and information services to our clients.

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We are proud to be a part of the news industry and to provide our clients with the highest quality news and information services. We are committed to excellence in everything we do.

For more information, please contact us at (202) 462-1111. We would be happy to answer any questions you may have.

RYAN AIRCRAFT MANUFACTURING COMPANY

TO SPEED PRODUCTION OF THE NEW GENERAL ELECTRIC ORDERS AND OTHER JET PARTS CONTRACT WORK, RYAN IS RUSHING TO EARLY FALL COMPLETION A NEW 75,000 SQUARE FOOT MANUFACTURING STRUCTURE LOCATED AT THE WEST END OF THE FINAL ASSEMBLY BUILDING. COSTING IN EXCESS OF \$300,000, THE NEW JET PARTS FACTORY WILL BE EQUIPPED WITH SOME \$2,000,000 OF SPECIALIZED PRODUCTION MACHINERY.

7-10-51W

The Board of Directors of the Company has approved the following resolution:

Resolved, that the Company shall purchase 1,000,000 shares of its common stock at a price of \$10.00 per share, for a total purchase price of \$10,000,000, in one or more transactions, and that the Company shall have the authority to enter into such purchase agreements as may be necessary to carry out this resolution.

Approved by the Board of Directors on this 15th day of June, 2000.

15/06/00





# NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH      HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

## RYAN AERONAUTICAL COMPANY GETS CONTRACT FOR CONSULTING SERVICE

TO HELP SPEED PRODUCTION OF URGENTLY NEEDED EXTERNAL FUEL TANKS OF RYAN AERONAUTICAL COMPANY'S OWN DESIGN, THE COMPANY HAS BEGUN ENTERING INTO ASSISTANCE CONTRACTS WITH OTHER MANUFACTURERS WHICH WILL SERVE AS ALTERNATE SOURCES. FIRST SUCH CONTRACT IS WITH AMERICAN STOVE COMPANY WHICH WILL SOON BEGIN PRODUCTION OF THE HUGE FUEL TANKS AT ITS ST. LOUIS, MISSOURI, PLANT.

SO THAT INCREASING MILITARY REQUIREMENTS FOR THE RYAN EXTERNAL TANKS, LARGEST KNOWN TO BE IN PRODUCTION, MAY BE MET, IT HAS BECOME NECESSARY FOR THE PRIME AIRFRAME MANUFACTURER TO ESTABLISH SEVERAL SOURCES OF SUPPLY. AS AN AID TO THE EXPANDED PROGRAM, RYAN HAS OFFERED TO EDUCATE THE ALTERNATE MANUFACTURERS IN THE ADVANCED PRODUCTION METHODS THE COMPANY HAS DEVELOPED.

SUCH EXTENSIVE USE IS BEING MADE OF RESISTANCE WELDING IN BUILDING THE TANKS THAT RYAN IS NOW ONE OF THE BEST EQUIPPED PLANTS IN THE WORLD FOR THIS SPECIALIZED WORK. MANY OTHER WELDING MACHINES ARE ON ORDER.

AS PART OF THE ASSISTANCE CONTRACT, AMERICAN STOVE RECENTLY SENT VICTOR FRANK, FUEL TANK PROJECT ENGINEER, AND RAYMOND JOHNSON, TOOLING ENGINEER, TO THE RYAN PLANT FOR AN EXTENDED STUDY OF MANUFACTURING TECHNIQUES.



# NEWS BUREAU & RYAN AERONAUTICAL COMPANY

410 SOUTH WABLER PARK      410 SOUTH WABLER PARK  
SAN DIEGO 15, CALIF.      SAN DIEGO 15, CALIF.

## RESEARCH AND DEVELOPMENT

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San Diego

## NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

For Release  
Saturday, August 4.

### RYAN AERONAUTICAL COMPANY ASKS APPROVAL TO INCREASE CAPITAL STOCK

A proposal for an increase in the authorized capital stock of Ryan Aeronautical Company from 500,000 shares of \$1.00 per value to 1,000,000 shares is being submitted for approval of stockholders by the Board of Directors.

Discussing the proposed increase in authorized capital stock, T. Claude Ryan, president, said that rapidly expanding production and the large backlog of orders makes it important that the corporation be in a position to do appropriate financing through issuance of some form of its own securities if and when advantageous to the company.

The Ryan Management indicated that at this time it had not reached any conclusion as to any specific plan or type of security that might be issued. Any issuance, if and when made, might take the form of a general offering for sale to the public or granting of rights to stockholders; or the reservation for conversion of long-term debentures which could be issued with provision for convertibility into common stock, company officials said.

The only class of Ryan stock is common capital stock, of which 439,193 shares are outstanding. Of these, 45,350 are held by the wholly owned subsidiary, Ryan School of Aeronautics. The amount of stock authorized in the Articles of Incorporation has not been changed since 1939. The solicitation of consent is being sent to stockholders of record July 20th.



# NEWS BUREAU & STAFF AERONAUTICAL COMPANY

ALL RIGHTS RESERVED

FOR THE YEAR ENDING 1933

INCORPORATED IN THE STATE OF CALIFORNIA

200 BROADWAY  
NEW YORK, N. Y.

## REPORT TO STOCKHOLDERS

The Board of Directors of the News Bureau & Staff Aeronautical Company has the honor to acknowledge the interest and cooperation of the stockholders in the operations of the Company during the year ending December 31, 1933. The Company has during the year ended December 31, 1933, continued its operations in accordance with the plan adopted at the meeting of the Board of Directors held on June 15, 1933, and has during the year ended December 31, 1933, continued its operations in accordance with the plan adopted at the meeting of the Board of Directors held on June 15, 1933.

The operations of the Company during the year ended December 31, 1933, have been characterized by a steady increase in the volume of business, and the Company has during the year ended December 31, 1933, continued its operations in accordance with the plan adopted at the meeting of the Board of Directors held on June 15, 1933.

The operations of the Company during the year ended December 31, 1933, have been characterized by a steady increase in the volume of business, and the Company has during the year ended December 31, 1933, continued its operations in accordance with the plan adopted at the meeting of the Board of Directors held on June 15, 1933.

Very truly yours,

THE BOARD OF DIRECTORS

WALTER H. ...

...

WALTER H. ...



Mailing Out 8-1-51  
Aviation Mags 1  
Financial RED  
San Diego

Out: 8-8-51  
Technical Red

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## NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

RYAN ANNOUNCES FIRST PRODUCTION

ORDERS FOR CERAMIC COATED PARTS

Ryan Aeronautical Company today announced the nation's first volume production contracts for adaptation of an ancient art to modern aircraft -- ceramic coating of exhaust systems to conserve growingly scarce strategic alloys.

Approximately 600 sets for Pratt & Whitney engines, including spares, for the Convair Model 240 and Model 340 transports will be ceramic-coated, Sam C. Breder, Ryan Customer Service Director, reported.

In addition, Boeing Airplane Company, Seattle, has ordered ceramic-coated Ryan exhaust assemblies for all its B-50 bombers and C-97 Stratofreighters under production for the Air Force.

In the jet engine field, General Electric has given Ryan experimental orders for ceramic coating of the transition liners and inner combustion chambers Ryan manufactures for the J-47 engine. G. E. has launched a program of using non-strategic materials on its famed J-47 engine, which will require ceramic coating for protection.

Experimental work also is being conducted with Douglas Aircraft Company and United Air Lines on ceramic coating of DC-6 transport exhaust stack assemblies, through service tests on actual scheduled runs.

And on the ground, Continental Motors Corporation's 825 h.p. engine for the General Patton tank, will have ceramic-coated sections on the new manifolds due to get into production soon at Ryan.



# NEWS BUREAU - RYAN AERONAUTICAL COMPANY

100 W. WASHINGTON  
CHICAGO, ILL.

UNIVERSITY MICROFILMS  
SERIALS ACQUISITION  
300 N. ZEEB RD.  
ANN ARBOR, MICH. 48106

ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED  
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THE UNIVERSITY MICROFILMS  
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The following information is being furnished to you for your information.

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For a complete list of titles and prices, please refer to the enclosed card.

The Bureau is pleased to have you as a subscriber and we hope you will

continue to receive the information you need for your work.

Very truly yours,  
J. H. Ryan, President

In addition, please advise the Bureau of any changes in your address.

If you have any questions, please contact the Bureau at the address above.

Respectfully,  
J. H. Ryan, President

If you have any questions, please contact the Bureau at the address above.

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Very truly yours,  
J. H. Ryan, President

Ryan is the only aircraft company in the country providing ceramic coated parts for piston engines on a production basis, Breder pointed out.

Its pioneering work in this field dates to World War 11, when portions of more than 500 complete exhaust systems for the Douglas A-20 attack bomber were given thick porcelain enamel coatings. A low carbon steel was used then because of a critical shortage of stainless steel.

Today's ceramic coating, applied to the "hot spots" of the engine -- the exhaust system -- to increase its life by enhancing its resistance to heat and gas erosion, is only one thousandth to three thousandths of an inch thick and adds little to the weight, a vital factor in aircraft, Breder said.

Importance of this technique has increased since World War 11, with engines generating temperatures of 2000 degrees and more, at the same time the Air Force is asking manufacturers to use high heat-resistant strategic alloys as little as possible.

The first service tests of ceramic coatings since World War 11 were conducted in a Pan American World Airways' giant Boeing 377 Stratocruiser on the transpacific run.

After more than 1800 hours service, examination showed that the Ryan ceramic coated exhaust systems had so resisted heat and erosion that Boeing decided to equip its entire fleet of Stratocruisers with ceramic-coated exhaust parts as replacements are made. These transports are flying for Northwest Airlines, British Overseas Airways Corp., United Air Lines and the Military Air Transport Service, as well as Pan-American.

On the Convair Model 240, the ceramic coated exhaust systems will





replace the non-coated parts of planes in service for American Airlines, Pan American World Airways, Western Air Lines, Continental Airlines, Midcontinent Airlines and Northeast Airlines. The ceramic-coated exhausts will go into the new Model 340 Convair Liners as they are built in San Diego.

8-3-51K



**NEWS BUREAU • RYAN AERONAUTICAL COMPANY**

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

SUBSTITUTION OF NON-STRATEGIC MATERIALS IN VITAL PORTIONS OF THE GENERAL ELECTRIC J-47 JET ENGINE, THE TOP PRODUCTION ENGINE FOR THE AIR FORCE, CAN BE MADE WITH NO SACRIFICE IN PERFORMANCE, G.E. ENGINEERS VISITING HERE REVEALED TODAY.

THEY CONFERRED WITH RYAN AERONAUTICAL COMPANY OFFICIALS REGARDING THE DESIRABILITY OF APPLYING CERAMIC COATINGS TO SUCH MATERIALS TO INCREASE THEIR PERFORMANCE LIFE—A PRINCIPLE ALREADY PROVED IN PISTON-ENGINE EXHAUST SYSTEMS.

INCOEL, HIGH IN CONTENT OF NICKEL, AND OTHER CRITICAL ALLOYS, CAN BE REPLACED BY LESS STRATEGIC ALLOYS IN SUCH PARTS AS THE JET ENGINE'S INNER COMBUSTION CHAMBERS AND TRANSITION LINERS ALREADY BEING PRODUCED BY RYAN, THE G.E. ENGINEERS WERE INFORMED. R. W. MEYER AND WALLACE R. DODGE, DESIGN ENGINEERS AT G.E.'S LAKELAND, OHIO PLANT, ARE STUDYING RYAN'S PRODUCTION EXPERIENCE IN CERAMIC COATING WITH THE VIEW TO ADAPTING IT TO THE NON-STRATEGIC MATERIALS.

BEING CONSIDERED IS APPLICATION OF A U.S. BUREAU OF STANDARDS CERAMIC COATING WITH WHICH RYAN HAS THE ONLY PRODUCTION EXPERIENCE IN THE AIRCRAFT INDUSTRY, ACCORDING TO C. L. FOUSHEE, JR., RYAN SERVICE MANAGER WHO CONFERRED WITH MEYER AND DODGE.

THE J-47, MOST POWERFUL TURBOJET IN FULL-SCALE PRODUCTION, IS THE NATION'S FIRST AIRCRAFT JET ENGINE TO BE BUILT WITH MAJOR REDUCTIONS IN STRATEGIC MATERIALS. IT POWERS THE AIR FORCE'S FASTEST BOMBERS AND FIGHTERS, INCLUDING THE BOEING B-47 BOMBER, THE NORTH AMERICAN WORLD'S SPEED RECORD-HOLDING F-86 FIGHTER, THE CONVAIR B-58 BOMBER AND THE NORTH AMERICAN B-45 BOMBER.

RYAN ALREADY IS PRODUCING CERAMIC-COATED EXHAUST SYSTEM PARTS FOR HUNDREDS OF ENGINE SETS ON SUCH PLANE AS THE CONVAIR MODEL 440 AND 440A AIRLINERS, THE BOEING B-50 BOMBERS, B-57 STRATOCRUISERS AND C-77 STRATOFREIGHTERS, AND ON THE GENERAL ATTON TANKS.



FOR DAILIES

C.L. ~~St~~ Foushee Jr., Ryan Aeronautical Company service representative, today is en route to England to train personnel of the British Overseas Airways Corp. in maintenance of exhaust systems.

He will be stationed at the B.O.A.C. ~~hangar~~ service hangars in Filton, England for two weeks. Ryan supplies the exhaust systems for the Wasp Major engines of the Boeing Stratocruisers used by B.O.A.C.

This is Foushee's second service trip to Europe in 3 years. <sup>1949,</sup> ~~in 1948,~~ during the Berlin airlift, he flew to Germany to help meet service problems on exhaust systems of the Air Force's C-54 transports which broke the Russian blockade of Berlin.

####

8.28.51 K

The first part of the document is a letter from the Secretary of the State to the Governor, dated January 10, 1870. The letter discusses the appointment of a new member to the State Board of Education. The Secretary mentions that the Board has recommended a certain individual, and the Governor is asked to approve the appointment. The letter is signed by the Secretary and dated as above.

The second part of the document is a report from the State Board of Education, dated January 10, 1870. The report discusses the progress of the Board's work during the previous year. It mentions that the Board has held several meetings and has considered various matters relating to the education of the State. The report also mentions that the Board has recommended the appointment of a new member to the Board. The report is signed by the Chairman of the Board and dated as above.

The third part of the document is a letter from the Governor to the Secretary of the State, dated January 10, 1870. The letter discusses the appointment of a new member to the State Board of Education. The Governor mentions that he has approved the appointment of the individual recommended by the Board. The letter is signed by the Governor and dated as above.



TO: AVIATION MAGS 1 & 2  
FINANCIAL RED  
MAGS. GEN.  
WIRE SERVICES  
S.D. (5)

MAILING OUT: 9-12-51

FOR RELEASE  
THURSDAY, SEPTEMBER 13

# NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

## RYAN TO DEVELOP ELECTRONIC EQUIPMENT FOR NAVY BUAER

BROADENING ITS ACTIVITIES IN THE ELECTRONICS FIELD, RYAN AERONAUTICAL COMPANY WILL DEVELOP A NEW TYPE OF EQUIPMENT OF AN UNDISCLOSED NATURE FOR THE U.S. NAVY BUREAU OF AERONAUTICS, T. CLAUDE RYAN, PRESIDENT, REVEALED TODAY IN ANNOUNCING RECEIPT OF A CONTRACT FOR THE PROJECT.

WHILE DETAILED INFORMATION ON THE NEW PROJECT IS STILL CLASSIFIED, BRUCE SMITH, RYAN DIRECTOR OF ENGINEERING, STATED THAT IT PLACES THE COMPANY IN A NEW FIELD OF WORK WITH BROAD POSSIBILITIES FOR FURTHER APPLICATION.

THE DEVELOPMENT PROGRAM IS UNDER THE DIRECTION OF OWEN S. OLDS, ELECTRONICS PROJECT ENGINEER.

9-11-51W



NEWS BUREAU & RYAN AERONAUTICAL COMPANY

LINDBERGH FIELD - SAN DIEGO 15, CALIF.

BOE CHIEF - HAROLD VEIN  
DIT. MANAGER

Copy to District Controller  
Company for file

MEMORANDUM FOR THE DISTRICT CONTROLLER  
SUBJECT: [Illegible subject line]  
[The following text is extremely faint and largely illegible, appearing to be a typed memorandum or report.]

5-11-31





MAILING OUT: 9-25-51  
SAN DIEGO UNION  
TOLEDO TIMES

## NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

ONCE AGAIN OLDSTERS ARE COMING OUT OF RETIREMENT TO SPEED WARPLANE PRODUCTION IN SAN DIEGO.

MANY HAVE HELD HIGHLY RESPONSIBLE POSITIONS EITHER IN PRIVATE INDUSTRY OR COMMUNITY WELFARE WORK. TODAY, IN ORDER TO HELP THE DEFENSE EFFORT, THEY'RE CONTENT TO LABOR IN THE OBSCURITY OF RANK-AND-FILE JOBS IN AIRCRAFT PLANTS.

TYPICAL ARE JOHN D. DUN, 59, FORMER EDITOR OF THE TOLEDO, O. TIMES, AND EARLE B. MOORE, 62, WHO HAS RETIRED EFFECTIVE SEPT. 30, AFTER 11 YEARS AS EXECUTIVE OF THE SAN DIEGO AREA COUNCIL, BOY SCOUTS OF AMERICA.

BOTH HAVE JUST STARTED PUNCHING CLOCKS AT RYAN AERONAUTICAL COMPANY, WHERE THEY ARE EMPLOYED AS STOCK CLERKS AND ARE HAPPY IN THE ANONYMITY OF THEIR NEW EXISTENCE. BOTH SAY IT'S A PLEASANT CONTRAST WITH THEIR FORMER WHITE-COLLAR ROUTINE.

"WITH NO MORE PUBLIC APPEARANCES TO MAKE OR CONFERENCES TO ATTEND, THE REGULAR HOURS OF A FACTORY JOB ARE ACTUALLY IMPROVING MY HEALTH," REMARKS MOORE, A VETERAN OF 33 YEARS' SERVICE AS A BOY SCOUT EXECUTIVE IN VARIOUS PARTS OF THE COUNTRY. BEFORE COMING TO SAN DIEGO IN 1940, HE HEADED SCOUT ORGANIZATIONS IN COLORADO SPRINGS, COLO.; DUBUQUE, IA.; GREELEY, COLO., AND WAS A DEPUTY REGIONAL EXECUTIVE WITH JURISDICTION OVER SIX MIDWESTERN STATES.

"AT 4 P.M., I CAN LEAVE MY JOB BEHIND ME," MOORE EXPLAINS. "NO LONGER DOES MY WORK FOLLOW ME HOME. AND DURING THE WORKING DAY, I AM PEEASED THAT AT THE AGE OF 62, I AM ABLE TO PERFORM USEFULLY."





# NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

-2-

DUN WAS EDITOR OF THE TOLEDO TIMES FROM 1914 TO 1939, WHEN HE RETIRED AND MOVED TO A RANCH AT TUCSON, ARIZ. DURING WORLD WAR II, BECAUSE HE WAS TOO OLD TO BE ACCEPTED BY THE ARMY, HE JOINED THE AMERICAN FIELD SERVICE AS AN AMBULANCE DRIVER ATTACHED TO THE FRENCH FOREIGN LEGION PURSUING ROMMEL'S GERMANS IN NORTH AFRICA.

FOR RESCUING WOUNDED MEN UNDER THE FIRE OF ENEMY GUNS, HE WAS AWARDED NOT ONLY THE FRENCH CROIX DE GUERRE, BUT ALSO THE MEDAILLE MILITAIRE, WHICH IN FRANCE CORRESPONDS TO THE CONGRESSIONAL MEDAL OF HONOR, AMERICA'S HIGHEST MILITARY AWARD.

SENT HOME ILL, DUN RECOVERED, AND THOUGH PAST 50, HE JOINED THE AMERICAN MILITARY GOVERNMENT, SERVING IN FRANCE AND ENGLAND UNTIL 1945. ON HIS RETURN, A NATIONAL SYNDICATE MADE A SUNDAY "STRIP" IN COLOR OF HIS NORTH AFRICAN ADVENTURES.

LAST YEAR, DUN AND HIS WIFE MOVED TO LA JOLLA. AFTER REMODELLING THEIR HOME, HE "GOT TIRED OF DOING NOTHING", LEARNED THAT HE COULD ASSIST IN THE DEFENSE EFFORT, AND WENT TO WORK IN AN AIRCRAFT PLANT.

###

9-24-51K



# NEWS BUREAU & RYAN AERONAUTICAL COMPANY

1000 BROADWAY, NEW YORK, N. Y.

ESTABLISHED 1917  
1000 BROADWAY, NEW YORK, N. Y.

The first of the new series of aircraft...  
 The second of the new series of aircraft...  
 The third of the new series of aircraft...

The fourth of the new series of aircraft...  
 The fifth of the new series of aircraft...  
 The sixth of the new series of aircraft...

The seventh of the new series of aircraft...  
 The eighth of the new series of aircraft...  
 The ninth of the new series of aircraft...  
 The tenth of the new series of aircraft...

11

1917



MAILING OUT: 10-15-51  
AVIATION MAGS 1 & 2  
TECHNICAL RED & YELLOW  
FINANCIAL RED & YELLOW

NEWSPAPERS RED  
MAGS GEN. RED

FOR RELEASE  
TUESDAY, OCTOBER 16

# NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

## RYAN AERONAUTICAL TO EXPAND

### ROCKET MOTOR WORK TENFOLD

A TEN-FOLD INCREASE IN PRODUCTION OF COMPLETE ROCKET MOTORS FOR SURFACE-TO-SURFACE MISSILES WILL BE UNDERTAKEN BY RYAN AERONAUTICAL COMPANY AS A RESULT OF ORDERS JUST RECEIVED, T. CLAUDE RYAN, PRESIDENT, ANNOUNCED TODAY.

LATEST CONTRACT FOR MISSILE ROCKET MOTORS IS FROM FIRESTONE TIRE AND RUBBER COMPANY OF LOS ANGELES. PREVIOUSLY RYAN HAS BUILT ROCKET MOTORS UNDER CONTRACT WITH DOUGLAS AIRCRAFT COMPANY FOR AN ARMY ORDNANCE CORPS MISSILE WHICH HAS BEEN DEVELOPED UNDER THE DIRECTION OF THE JET PROPULSION LABORATORY OF CALTECH.

TO CONFINE THE TREMENDOUS BUT SHORT-LIVED THRUST OF THE POWERFUL ROCKET ENGINES, EXTREMELY HEAVY GAUGE MATERIALS ARE USED IN THE MANUFACTURING PROCESSES, WHICH REQUIRE NEW TECHNIQUES IN FORMING AND WELDING. THE ENGINE CONSUMES VAST QUANTITIES OF FUEL AND OXIDIZER, CREATING TERRIFIC INTERNAL PRESSURES.

DROP-HAMMER FORMING TO VERY CLOSE TOLERANCE IS USED BY RYAN IN FABRICATING THE OUTER SHELL AND OTHER SHEET METAL PORTIONS. BOTH ELECTRIC RESISTANCE AND ARC WELDING PROCESSES ARE USED, AS IS FURNANCE BRAZING, IN JOINING THE VARIOUS COMPONENTS. CERTAIN OF THE MAJOR ASSEMBLIES OF THE MOTOR ARE PRECISION MACHINED FROM STAINLESS STEEL BILLETS.

LONG EXPERIENCED IN BUILDING THE "HOT END" OF JET AND PISTON ENGINES, RYAN IS FURTHER EXPANDING THE SCOPE OF ITS INTEREST IN THE ROCKET MOTOR FIELD AS THE RESULT OF THE NEW FIRESTONE CONTRACT.

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10-15-51W

THE ...

Main body of the document containing several paragraphs of text, which is extremely faint and difficult to read.



MAILED TO FINANCIAL RED & YELLOW  
10-31-51

To the Stockholders of The Ryan Aeronautical Co.:

A quarterly dividend of 10 cents per share on the common capital stock of The Ryan Aeronautical Co. was declared by the Board of Directors at a regular meeting on October 26, 1951.

This cash dividend is payable December 12, 1951 to stockholders of record as of November 21, 1951.

THE RYAN AERONAUTICAL CO.,

By T. Claude Ryan, President.

San Diego, California

October 31, 1951

PHARMACEUTICAL COMPANY

RESEARCH AND DEVELOPMENT

DATE: 10/25/88

BY: [Signature]

The following information was obtained from the records of the company regarding the development of the new drug application (NDA) for the drug [Drug Name]. The information was obtained from the records of the company and is being provided to you for your information. The information is being provided to you for your information and is not intended to be used for any other purpose. The information is being provided to you for your information and is not intended to be used for any other purpose. The information is being provided to you for your information and is not intended to be used for any other purpose.





MAILED: 2-27-52 - 2-28-52

FIN. DAILY PRESS (WITH ANNUAL REPORT & ATTACH.)  
FIN. MAGS & WRITERS " " " " "  
AVIA. MAGS 1 & 2 " " " " "

FOR RELEASE  
FRIDAY, FEBRUARY 29

NEWS BUREAU LOCAL BANKS  
& INVESTMENT  
BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN  
PUB. REL. & AIA

# Ryan Aeronautical Company

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

## RYAN AERONAUTICAL 1951 SALES TOP

\$22,000,000; NET PROFIT \$402,604

GROSS REVENUE OF THE RYAN AERONAUTICAL COMPANY FOR THE 1951 FISCAL YEAR ENDED OCTOBER 31, LAST, WAS \$22,277,175, AN INCREASE OF 78% OVER THE \$12,512,851 FOR THE COMPARABLE PERIOD OF 1950, T. CLAUDE RYAN, PRESIDENT, REPORTED TODAY IN HIS 21ST ANNUAL REPORT TO STOCKHOLDERS.

EARNINGS FOR THE 12 MONTHS WERE \$827,604 BEFORE TAXES, AND NET INCOME AFTER TAXES WAS \$402,604, EQUAL TO \$1.02 PER SHARE ON THE 393,843 NET OUTSTANDING SHARES. NET PROFIT IN FISCAL 1950 WAS \$635,165, OR \$1.61 PER SHARE.

"DESPITE RISING PRODUCTION COSTS AND A PROFIT MARGIN LOWER THAN IN THE CORRESPONDING PERIOD OF 1950," RYAN SAID, "THE NET WORTH REACHED AN ALL-TIME HIGH OF \$5,217,072 AT THE FISCAL YEAR END. THE BOOK VALUE PER NET OUTSTANDING SHARE STOOD AT \$13.25, COMPARED WITH \$12.72 AT THE START OF THE PERIOD.

"THE LOWER EARNINGS-TO-SALES RATIO IN 1951 WAS DUE PRINCIPALLY TO THE ABNORMALLY HIGH COSTS INCIDENT TO THE RAPID PRODUCTION BUILD-UP ON NEW PRODUCTS. MUCH OF THE HIGH STARTING LOAD AND TOOLING COSTS INCURRED IN BUILDING UP TO INCREASED VOLUME ARE NOW ABSORBED AND AS HIGHER OUTPUT IS REACHED, AN IMPROVED EARNING RATIO IS NOW BEING REFLECTED."

AT THE START OF THE 1951 FISCAL YEAR, THE BOARD OF DIRECTORS PLACED THE COMPANY'S STOCK ON A REGULAR QUARTERLY DIVIDEND BASIS. SINCE THAT TIME FIVE CONSECUTIVE DIVIDENDS OF 10 CENTS EACH HAVE BEEN PAID, AND A SIXTH DIVIDEND OF THE SAME AMOUNT WILL BE PAID MARCH 12 TO STOCKHOLDERS OF RECORD FEBRUARY 20.

TO HANDLE THE INCREASED VOLUME OF BUSINESS IN CONNECTION WITH THE DEFENSE PROGRAM, RYAN ADDED 90,000 SQ. FT. OF NEW FACTORY AREA, INCLUDING A BUILDING EXCLUSIVELY

THE UNIVERSITY OF CHICAGO  
DEPARTMENT OF CHEMISTRY  
CHICAGO, ILLINOIS

[The main body of the document contains several paragraphs of text that are extremely faint and illegible due to the quality of the scan. The text appears to be a formal report or letter, possibly detailing a chemical experiment or research findings.]

FOR JET ENGINE PARTS PRODUCTION, DURING THE YEAR, BRINGING TOTAL BUILDING AREA TO 730,000 SQ. FT. BESIDES THESE FACTORY ADDITIONS, COSTING SOME \$430,000, RYAN INVESTED \$825,000 IN NEW MANUFACTURING EQUIPMENT WHICH INCLUDES SOME OF THE LARGEST PRECISION MACHINE TOOLS AND ELECTRIC RESISTANCE WELDERS USED ANYWHERE IN THE AIRCRAFT INDUSTRY.

FROM A BACKLOG OF \$21,414,220 AT THE START OF THE 1951 FISCAL YEAR, THE TOTAL OF UNDELIVERED CONTRACTS INCREASED TO \$41,542,204 BY THE CLOSE OF THE PERIOD AND HAVE SINCE RISEN AN ADDITIONAL FOUR MILLION DOLLARS.

RYAN REVEALED THAT THE COMPANY IS WORKING ON A NUMBER OF PRIME RESEARCH AND DEVELOPMENT CONTRACTS FROM THE AIR FORCE AND NAVY BUT THAT SECURITY RESTRICTIONS PREVENT OTHER THAN VERY GENERAL IDENTIFICATION OF THE PROJECTS. MENTIONED IN THE ANNUAL REPORT ARE A JET PROPULSION RESEARCH PROGRAM FOR THE NAVY, RYAN XQ-2 JET-PROPELLED PILOTLESS TARGET PLANES, AND ELECTRONICS DEVELOPMENT WORK FOR BOTH THE AIR FORCE AND NAVY.

"WHILE THESE PROJECTS DID NOT CONTRIBUTE HEAVILY TO TOTAL REVENUES, THEY ARE CONSIDERED IMPORTANT TO THE COMPANY'S FUTURE SINCE RESEARCH AND DEVELOPMENT WORK IS THE FORERUNNER OF NEW PRODUCTS AND PRODUCTION PROGRAMS," RYAN SAID.

OTHER CURRENT WORK IN THE AIRPLANE DIVISION INCLUDES MANUFACTURE OF AFT FUSELAGE SECTIONS, REFUELING PODS, CARGO DOORS AND FLOOR BEAMS FOR BOEING MILITARY TRANSPORT PLANES, AND VOLUME PRODUCTION OF THE LARGEST EXTERNAL FUEL TANKS KNOWN TO BE IN PRODUCTION.

IN THE METAL PRODUCTS DIVISION, THE VOLUME OF JET ENGINE COMPONENTS WORK IS EXPANDING RAPIDLY BUT THE EFFECT OF THE LARGE BACKLOG OF ORDERS WILL NOT BE FULLY FELT UNTIL SOMETIME NEXT YEAR.

THE ANNUAL REPORT DISCLOSED THAT RYAN IS EXPANDING ITS WORK IN THE ROCKET POWER PLANT FIELD AND IS NOW MANUFACTURING COMPLETE ROCKET MOTORS OF A TYPE DEVELOPED BY THE JET PROPULSION LABORATORY OF THE CALIFORNIA INSTITUTE OF TECHNOLOGY. EXHAUST SYSTEMS FOR PISTON ENGINES, HOWEVER, ACCOUNTED FOR THE LARGEST DOLLAR VOLUME OF METAL PRODUCTS WORK LAST YEAR. THE COMPANY NOW BUILDS EXHAUST SYSTEMS FOR COMBAT TANKS AS WELL AS FOR AIRPLANES, RYAN REVEALED.





NEWS BUREAU

BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN

MAILING OUT: 3-7-52  
AVIATION MAGS 1  
FIN. MAGS & WRITERS  
FIN. DAILY PRESS

# *Ryan Aeronautical Company*

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

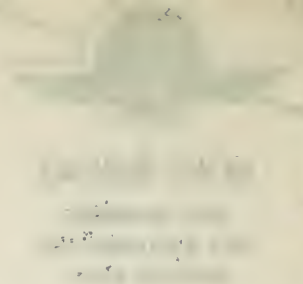
RYAN AERO FIRST QUARTER

SALES TOP \$6,000,000

GROSS REVENUE OF THE RYAN AERONAUTICAL CO. FOR  
THE FIRST QUARTER OF THE 1952 FISCAL YEAR WAS \$6,013,410,  
THE COMPANY HAS REPORTED TO THE SECURITIES AND EXCHANGE  
COMMISSION.

SALES VOLUME SHOWED A 61 PERCENT INCREASE OVER THE  
\$3,750,013 FOR THE THREE MONTHS PERIOD ENDED JANUARY 31,  
1951.

3-7-52W



THE UNIVERSITY OF CHICAGO  
DEPARTMENT OF CHEMISTRY  
5408 SOUTH DIVISION STREET  
CHICAGO, ILLINOIS 60637  
TEL: 773-936-3100  
WWW.CHEM.UCHICAGO.EDU



**NEWS BUREAU**

**BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN**

# *Ryan Aeronautical Company*

**LINDBERGH FIELD • SAN DIEGO 12, CALIF.**

RYAN AERONAUTICAL APPOINTS N. Y.

TRANSFER AGENT AND REGISTRAR

TO EXPEDITE THE HANDLING OF STOCK TRANSFERS IN EASTERN FINANCIAL CENTERS, THE RYAN AERONAUTICAL CO. HAS APPOINTED MANUFACTURERS TRUST COMPANY OF NEW YORK CITY AS TRANSFER AGENT AND CHEMICAL BANK & TRUST COMPANY, ALSO OF NEW YORK CITY, AS REGISTRAR.

AT THE SAME TIME, G. C. WOODARD, EXECUTIVE VICE-PRESIDENT AND TREASURER, ANNOUNCED DISCONTINUANCE OF THE STOCK TRANSFER FEE FORMERLY MADE FOR ISSUANCE OF NEW CERTIFICATES.

STOCK OF THE RYAN AERONAUTICAL CO. IS LISTED ON THE NEW YORK CURB EXCHANGE AS WELL AS ON THE LOS ANGELES AND SAN FRANCISCO STOCK EXCHANGES.

THE EASTERN TRUST COMPANIES WILL SERVE AS CO-TRANSFER AGENTS AND CO-REGISTRARS WITH THE RYAN AERONAUTICAL CO. AND UNION TITLE AND TRUST COMPANY, OF SAN DIEGO, RESPECTIVELY.

3-7-52W

General Information

1234567890

Section 1

Section 2

Section 3

Section 4

Section 5





**NEWS BUREAU**

**BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN**

S.D. RED  
AVIATION MAGS 2  
NEWSPAPERS RED  
WIRE SERVICES RED  
ARMY - NAVY RED

MAILING OUT: 3-18-52 - 3-19-52

MISC. RED  
FREE LANCE RED  
MAGAZINES GENERAL  
FINANCIAL DAILY PRESS  
FINANCIAL MAGAZINES

FOR RELEASE  
FRIDAY, MARCH 21

**Ryan Aeronautical Company**

**LINDBERGH FIELD • SAN DIEGO 12, CALIF.**

RYAN AERONAUTICAL, CALIFORNIA METAL ENAMELING

COMPANIES MERGE CERAMIC COATING ACTIVITIES

CLIMAXING TWO YEARS OF COORDINATED PRODUCTION AND TESTING OF CERAMIC COATED PARTS FOR HIGH-TEMPERATURE AIRCRAFT APPLICATIONS, RYAN AERONAUTICAL COMPANY AND CALIFORNIA METAL ENAMELING COMPANY TODAY ANNOUNCED THEY HAVE COMBINED THEIR ACTIVITIES IN THIS FIELD.

BOTH FIRMS CONTRIBUTE SPECIALIZED KNOWLEDGE WHICH WILL FURTHER THE DEVELOPMENT OF STILL BETTER CERAMIC COATINGS AND SPEED PRODUCTION OF CRITICAL PARTS FOR JET, PISTON AND ROCKET ENGINES. THE NEW ARRANGEMENT COMBINES RYAN LEADERSHIP IN MAKING HEAT- AND CORROSION-RESISTANT SHEET METAL PARTS WITH CAMEO'S HALF-CENTURY CERAMICS PRODUCTION EXPERIENCE AND EXTENSIVE FACILITIES.

IN ANNOUNCING THE MERGER OF THEIR CERAMICS PROGRAMS, THE TWO FIRMS ALSO DISCLOSED THAT AN IMPROVED CERAMIC, A-418-RYANCO-C, HAS BEEN DEVELOPED AS A RESULT OF LABORATORY AND SERVICE TESTS, AND HAS BEEN USED FOR SOME TIME IN PRODUCTION OF AIRCRAFT ENGINE COMPONENTS.

SPECIAL SIGNIFICANCE IS ATTACHED TO THE RYAN-CAMEO ARRANGEMENT BECAUSE OF THE IMPORTANCE OF CERAMIC COATINGS TO THE GOVERNMENT'S PROGRAM OF CONSERVATION OF CRITICAL MATERIALS.

THE DEVELOPMENT PROGRAM THE COMPANIES HAVE CARRIED OUT SINCE EARLY 1950 HAS VERIFIED THE BENEFITS OF SPECIAL CERAMIC COATINGS WHEN USED WITH HIGH TEMPERATURE COMPONENTS FOR AIRCRAFT POWER PLANTS. NOT ONLY DO THE CERAMIC APPLICATIONS EXTEND THE SERVICE LIFE OF ALLOYS SPECIFIED FOR JET AND INTERNAL COMBUSTION ENGINE COMPONENTS, BUT THEY ALSO MAKE IT POSSIBLE TO USE LOWER GRADE ALLOYS BY GIVING THEM THE RUGGED STAMINA REQUIRED FOR THESE APPLICATIONS.



# MEMORANDUM FOR THE DIRECTOR, OFFICE OF INSPECTOR GENERAL

## Subject: [Illegible]

[The body of the memorandum contains several paragraphs of text that are extremely faint and illegible. The text appears to be a formal report or memorandum, likely detailing an audit or investigation. It includes a header section, a subject line, and several paragraphs of descriptive text. The text is too light to transcribe accurately.]

MANY VITAL HIGH TEMPERATURE COMPONENTS FOR JET ENGINES, WHICH ARE NOW MADE OF INCONEL, MAY BE FABRICATED FROM TYPE 321 STAINLESS STEEL AND ADAPTED TO THE SAME APPLICATIONS WITH CERAMIC COATINGS. SINCE INCONEL CONTAINS A MINIMUM OF 70 PERCENT NICKEL AND TYPE 321 CONTAINS ONLY BETWEEN 8 AND 11 PERCENT OF THE PRECIOUS METAL, A SUBSTANTIAL SAVING OF THIS SCARCE MATERIAL CAN THUS BE EFFECTED. SIMILARLY, OTHER CRITICALLY SHORT ELEMENTS SUCH AS COLUMBIUM, COBALT AND TUNGSTEN, MAY BE CONSERVED BY SUBSTITUTING LOWER GRADE ALLOYS, COATED WITH THIS CERAMIC, FOR THE RICHER "LUXURY CLASS" METALS.

THE NEW AGREEMENT BETWEEN RYAN AND CALIFORNIA METAL ENAMELING PROVIDES THAT THE COMPANIES WILL JOINTLY FINANCE A CONTINUING PROGRAM OF RESEARCH IN THE IMPROVEMENT OF HIGH TEMPERATURE CERAMIC COATINGS AND THEIR METHODS OF APPLICATION.

IN FILLING THE SUBSTANTIAL ORDERS WHICH HAVE RESULTED FROM THE DEVELOPMENT WORK OF THE PAST TWO YEARS, RYAN AND CALIFORNIA METAL ENAMELING HAVE BECOME THE FIRST COMPANIES TO PRODUCE CERAMIC COATED PARTS IN LARGE VOLUME FOR AIRCRAFT ENGINE APPLICATIONS.

THE ENTIRE FLEETS OF BOEING STRATOCRUISER AND CONVAIR 240 PISTON-ENGINED AIRLINERS ARE BEING EQUIPPED WITH RYAN-CAMEO CERAMIC COATED EXHAUST SYSTEM PARTS. EXPERIMENTALLY, COMBUSTION CHAMBERS AND TRANSITION LINERS FOR JET ENGINES HAVE BEEN COATED AND PRELIMINARY ANALYSIS OF TEST RESULTS HAVE BEEN VERY ENCOURAGING. OTHER TEST ORDERS HAVE BEEN FABRICATED FOR PRATT & WHITNEY AIRCRAFT FOR THE POWERFUL 3500 H.P. WASP MAJOR ENGINE, AND FOR DOUGLAS AIRCRAFT COMPANY'S DC-6 AIRLINERS OPERATED BY UNITED AIR LINES.

FOR GROUND VEHICLES, RYAN AND CAMEO ARE BUILDING THOUSANDS OF CERAMIC COATED SECTIONS FOR THE MANIFOLDS USED ON THE CONTINENTAL 825 H.P. ENGINES WHICH POWER M-46 AND M-47 COMBAT TANKS.

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NEWS BUREAU

BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN

# *Ryan Aeronautical Company*

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

CERAMIC ENGINEER JOINS RYAN

AERONAUTICAL TECHNICAL STAFF

IN AN EXPANSION OF ITS TECHNICAL RESEARCH PROGRAM WHICH POINTS UP THE GROWING IMPORTANCE OF CERAMICS IN THE AIRCRAFT INDUSTRY, RYAN AERONAUTICAL COMPANY HAS APPOINTED ALEXANDER PECHMAN, CERAMIC ENGINEER, TO THE STAFF OF ITS DEVELOPMENT LABORATORIES.

A GRADUATE OF NORTH CAROLINA STATE COLLEGE, ONE OF THE FEW COLLEGES EQUIPPED TO GRANT BACHELOR OF SCIENCE DEGREES IN CERAMIC ENGINEERING, PECHMAN HAS BEEN TRAINED IN HIGH TEMPERATURE APPLICATIONS.

HIS SPECIALIZED EXPERIENCE WILL BE DEVOTED TO RYAN'S PROGRAM OF TESTING, IMPROVING AND DEVELOPING CERAMIC COATINGS FOR JET, ROCKET AND INTERNAL COMBUSTION ENGINES. HIS SERVICES WILL ALSO BE AVAILABLE TO RYAN CUSTOMERS FOR TECHNICAL COUNSEL ON NEW CERAMIC APPLICATIONS.

PECHMAN COMES TO RYAN FROM THE COOK CERAMIC MANUFACTURING COMPANY OF TRENTON, NEW JERSEY WHERE HE PLAYED A PROMINENT PART IN THE DEVELOPMENT OF CERAMIC INSULATING BODIES FOR ELECTRICAL APPLICATIONS. THESE COMPONENTS WERE REQUIRED TO HAVE HIGH ELECTRICAL INSULATING CHARACTERISTICS, LOW COEFFICIENTS OF EXPANSION AND GOOD RESISTANCE TO ELEVATED TEMPERATURES.

PRIOR TO HIS WORK WITH COOK, PECHMAN WAS ASSOCIATED WITH THE NATIONAL BUREAU OF STANDARDS IN WASHINGTON, D.C. WHERE HE PERFORMED LABORATORY RESEARCH ON GOVERNMENT PROJECTS. HE TOOK PART IN THE TESTING OF SPECIAL SILICONE PAINTS AND THE ENAMELING OF COMPONENTS FOR A NEW BOMB SIGHT. HE IS A MEMBER OF THE AMERICAN CERAMIC SOCIETY AND KERAMOS - THE NATIONAL CERAMIC HONOR SOCIETY.

MEMORANDUM FOR THE DEAN OF THE FACULTY

RE: [Illegible]

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NEWS BUREAU

BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN

MAILING OUT: 3-20-52

AVIATION MAGAZINES 1  
TECHNICAL RED  
TECHNICAL YELLOW

# Ryan Aeronautical Company

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

## RYAN AERONAUTICAL, CALIFORNIA METAL ENAMELING COMPANIES MERGE CERAMIC COATING ACTIVITIES

Climaxing two years of coordinated production and testing of ceramic coated parts for high-temperature aircraft applications, Ryan Aeronautical Company and California Metal Enameling Company have announced they have combined their activities in this field.

Both firms contribute specialized knowledge which will further the development of still better ceramic coatings and speed production of critical parts for jet, piston and rocket engines. The new arrangement combines Ryan leadership in making heat - and corrosion-resistant sheet metal parts with Cameo's half-century ceramics production experience and extensive facilities.

In announcing the merger of their ceramics programs, the two firms also disclosed that an improved ceramic, A-418-Ryanco-C, has been developed as a result of laboratory and service tests, and has been used for some time in production of aircraft engine components.

The "Ryanco-C" ceramic process involves not only improved A-418 ceramic materials but also new methods and thicknesses of application. Extensive gauge studies with the new ceramic discloses that some applications give better results with fairly thick coatings, while others are better when applied extremely thin.

Special significance is attached to the Ryan-Cameo arrangement because of the importance of ceramic coatings to the government's program of conservation of critical materials. The development program the companies have carried out since early 1950 has verified the benefits of special ceramic coatings when used with high temperature components for aircraft power plants. Not only do the





ceramic applications extend the service life of alloys specified for jet and internal combustion engine components, but they also make it possible to use lower grade alloys by giving them the rugged stamina required for these applications.

Many vital high temperature components for jet engines, which are now made of Inconel, may be fabricated from type 321 stainless steel and adapted to the same applications with ceramic coatings. Since Inconel contains a minimum of 70 percent nickel and type 321 contains only between 8 and 11 percent of the precious metal, a substantial saving of this scarce material can thus be effected. Similarly, other critically short elements such as columbium, cobalt and tungsten, may be conserved by substituting lower grade alloys, coated with this ceramic, for the richer "luxury class" metals.

The new agreement between Ryan and California Metal Enameling provides that the companies will jointly finance a continuing program of research in the improvement of high temperature ceramic coatings and their methods of application. This work, carried on by the two laboratories, will continue the mutual development program which has been in progress since the beginning of the first experiments two years ago.

The first ceramic material used in this work was A-417 which was developed by the National Bureau of Standards after six years of intensive effort. Although very successful, it was improved by NBS and A-418 was created. From the evaluations made of these ceramics by Ryan-Cameo in the laboratory and in the field, the improved A-418-Ryanco-C has been developed, and a number of innovations perfected in preparing, applying and firing the coatings which gives it maximum toughness and adherence.

This latest product is designed to perform under continuous temperature of 1800<sup>o</sup>F. and remains unaffected by thermal shocks encountered in exhaust systems between -70<sup>o</sup>F. and 1700<sup>o</sup>F. In addition, the thin ceramic coatings will sustain a surprising amount of mechanical impact without damage.

The first part of the report deals with the general situation of the country and the progress of the work done during the year. It is followed by a detailed account of the various projects and schemes which have been carried out. The report concludes with a summary of the results achieved and a statement of the resources available for the coming year.

REPORT ON THE WORK OF THE DEPARTMENT

The Department has during the year been engaged in a number of important projects, the results of which are set out in the following pages. It has also been concerned with the general administration of the Department and with the improvement of the services rendered to the public.

GENERAL ADMINISTRATION

The Department has during the year been engaged in a number of important projects, the results of which are set out in the following pages. It has also been concerned with the general administration of the Department and with the improvement of the services rendered to the public.

PROJECTS AND SCHEMES

The Department has during the year been engaged in a number of important projects, the results of which are set out in the following pages. It has also been concerned with the general administration of the Department and with the improvement of the services rendered to the public.

Founded in 1922, Ryan Aeronautical Company for the past 15 years has held a leading position in the design and production of heat - and corrosion-resistant equipment for the "hot end" of piston aircraft engines. With the advent of jet and rocket engines, and their greater use of high temperature sheet metal components, Ryan has built a similar reputation in these fields.

California Metal Enameling Company has grown since 1905 to be the largest metal enameling firm in the west. Its key personnel, including President Joseph T. Penton, have a half-century of experience in highly specialized ceramic and porcelain enameling work. For many years, Cameo made approximately ten percent of all enamel signs in the United States.

Most important investigation carried out since the Ryan-Cameo relationship began in 1950 is a flight test program arranged with Pan American World Airways. Ryan fabricated exhaust components, using a variety of alloys, and had them ceramic coated by California Metal Enameling. These assemblies were placed on the powerful 3500 H. P. engines of Stratocruiser aircraft used in trans-pacific flights and are now approaching 2000 hours of service test under actual flight conditions.

Periodic examinations of these test units in the development laboratories verified the life-extending benefits of the new technique and established Ryan and Cameo as the leading authorities in its application to the aircraft industry. In filling the substantial orders which resulted from the development work, the two companies have become the first to produce ceramic coated parts in large volume.

Experimentally, combustion chambers and transition liners for the General Electric J-47 jet engine have been ceramic coated and preliminary analysis of test results are very encouraging. Production orders for piston engine exhaust systems are being fabricated for the entire fleet of Boeing Stratocruisers in the services of Pan American, Northwest Airlines, British Overseas Airways Corp.,

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United Air Lines and the Military Air Transport Service.

Ceramic coated exhaust system components are also being built for fleets of Convair 240s operated by American Airlines, Pan American, Western Air Lines, Continental Air Lines, Northeast Airlines and Mid-Continent Airlines.

Experimental orders have been received from Pratt & Whitney for complete ceramic coated exhaust manifolds for the R-4360 engine which is used on Boeing C-97 and B-50 aircraft and Convair B-36 bomber. Experimental work is being conducted with the Douglas Aircraft Company and United Air Lines on ceramic coatings for DC-6 exhaust systems.

On ground equipment, Ryan and Cameo are fabricating thousands of ceramic coated sections for the Ryan manifolds which serve the Continental 825 H. P. engines in General Patton M-46 and M-47 medium tanks.

The introduction of ceramics, an art known to the ancients, to the field of modern aviation power plants is the most promising metallurgical development in many years. Having led the aircraft industry in the verification of this new technique, Ryan and California Metal Enameling are merging their knowledge and facilities to meet the demands of rapidly expanding production.

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3-13-52





NEWS BUREAU

BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN

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MAILED TO STOCKHOLDERS  
BY TRUDY APPROX. 4-3-52

**NEWS BUREAU**

**BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN**

# *Ryan Aeronautical Company*

**LINDBERGH FIELD • SAN DIEGO 12, CALIF.**

**\$25 MILLION RYAN AERO ORDERS**

**BOOST BACKLOG TO \$70 MILLION**

CLOSING OF NEW PRODUCTION ORDERS FOR MORE THAN \$25,000,000 WORTH OF ITS AERONAUTICAL PRODUCTS, INCLUDING THE LARGEST SINGLE CONTRACT OF THE PAST SEVEN YEARS, HAS BEEN ANNOUNCED BY T. CLAUDE RYAN, PRESIDENT OF THE RYAN AERONAUTICAL COMPANY.

AS A RESULT OF THE ADDED CONTRACTS, OBTAINED IN RECENT WEEKS, THE COMPANY'S BACKLOG HAS BEEN INCREASED MORE THAN 56 PERCENT TO OVER \$70,000,000. ORDERS ON HAND A YEAR AGO AMOUNTED TO \$30 MILLION AND TWO YEARS AGO WERE \$6 MILLION. EMPLOYMENT, NOW 3650 AT RYAN'S SAN DIEGO FACTORY, IS PLANNED TO RISE TO APPROXIMATELY 5000 BY THE YEAR-END, THE COMPANY EXECUTIVE SAID.

LARGEST SINGLE ORDER IN THE NEW GROUP OF CONTRACTS IS FROM BOEING AIRPLANE COMPANY OF SEATTLE. IT CALLS FOR RYAN TO SUBSTANTIALLY INCREASE ITS OUTPUT OF HUGE AFT FUSELAGE SECTIONS, REFUELING PODS, CARGO DOORS AND FLOOR BEAMS FOR THE AIR FORCE'S VERSATILE BOEING C-97 STRATOFREIGHTER, A COMBINATION CARGO PLANE AND FLYING TANKER.

THE BOEING ORDER IS THE LARGEST CONTRACT RYAN HAS EVER RECEIVED FOR AIRFRAME COMPONENTS, AND WAS EXCEEDED IN SIZE ONLY BY THE COMPANY'S WARTIME ORDERS FOR RYAN "FIREBALL" JET FIGHTERS FOR THE NAVY.

RYAN SAID THE COMPANY HAS BEEN BUILDING THE BOEING C-97 AFT FUSELAGE SECTIONS FOR THE PAST THREE YEARS AND THAT THE NEW ORDER SUBSTANTIALLY INCREASES THE TOTAL NUMBER SCHEDULED FOR PRODUCTION. LAST YEAR WHEN THE AIR FORCE ANNOUNCED THE KC-97 FLYING TANKER MODEL INCORPORATING BOEING'S "FLYING BOOM" FOR AERIAL REFUELING, RYAN BEGAN PRODUCTION OF THE REFUELING PODS WHICH ARE INTERCHANGEABLE WITH THE



RYAN-BUILT CARGO DOORS AND ARE THE PRINCIPAL ITEM NEEDED TO MAKE THE HUGE FOUR-ENGINE TRANSPORTS CONVERTIBLE FROM CARGO, TROOP, AMBULANCE OR PASSENGER TRANSPORT PLANES TO FLYING TANKERS IN A FEW HOURS.

OTHER IMPORTANT CONTRACTS JUST RECEIVED, WHICH GO TO MAKE UP THE \$25,000,000 ADDITION IN NEW ORDERS, INCLUDE THOSE FOR RYAN'S METAL PRODUCTS DIVISION FROM CONTINENTAL MOTORS CORP., DOUGLAS AIRCRAFT COMPANY, PRATT & WHITNEY, KAISER MANUFACTURING COMPANY AND THE U S. AIR FORCE. THESE ORDERS ARE FOR EXHAUST SYSTEMS AND OTHER HIGH-TEMPERATURE COMPONENTS FOR JET AND PISTON ENGINES.

# # #

4-3-52





NEWS BUREAU

BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN

MAILING OUT: 3-19-52  
AVIATION MAGS 1  
FINANCIAL DAILY PRESS  
FINANCIAL MAGS & WRITERS

# Ryan Aeronautical Company

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

RYAN EARNS \$164,000 IN 1ST QUARTER;

BOARD AND OFFICERS RE-ELECTED

SINCE THE CLOSE OF RYAN AERONAUTICAL COMPANY'S 1951 FISCAL YEAR, THE INCREASED PROFIT RATIO FORECAST IN THE ANNUAL REPORT IS BEING SHOWN, T. CLAUDE RYAN, PRESIDENT, REPORTED TO STOCKHOLDERS YESTERDAY (TUESDAY) AT THE CORPORATION'S ANNUAL MEETING.

NET EARNINGS OF \$164,446 FOR THE FIRST QUARTER OF 1952, ENDED JANUARY 31, WERE REPORTED IN A SUMMARIZED, UNAUDITED STATEMENT MADE TO STOCKHOLDERS. THESE EARNINGS WERE EQUIVALENT TO APPROXIMATELY 42 CENTS PER SHARE ON THE NET OUTSTANDING SHARES, AND COMPARE WITH \$402,604, OR \$1.02 PER SHARE FOR THE FULL 1951 FISCAL YEAR.

NET WORTH OF THE STOCKHOLDERS' EQUITY INCREASED TO \$5,337,599 EQUAL TO \$13.55 PER SHARE COMPARED WITH \$13.25 ON OCTOBER 31, 1951.

GROSS INCOME FOR THE FIRST QUARTER WAS \$6,039,633, COMPARED WITH \$3,750,013 FOR THE CORRESPONDING PERIOD OF THE PRIOR YEAR. NET INCOME, BEFORE FEDERAL TAXES, FOR THE THREE MONTHS WAS \$400,795 AND PROVISION FOR FEDERAL INCOME AND EXCESS PROFITS TAXES WAS \$236,349.

"PRODUCTION VOLUME IS AT THE HIGHEST RATE IN SEVEN YEARS," RYAN TOLD STOCKHOLDERS, "AND IS SCHEDULED TO CONTINUE TO INCREASE IN SPITE OF THE GOVERNMENT'S RECENT 'STRETCH-OUT' IN THE MILITARY AIRCRAFT PROGRAM. IT WILL BE 18 TO 24 MONTHS BEFORE THE FULL BENEFIT OF RYAN'S INCREASED PRODUCTION CAPACITY IS REALIZED. NEW TOOLS AND EQUIPMENT WHICH HAVE LONG BEEN ON ORDER ARE CONSTANTLY BEING INSTALLED AND OUR NEW JET ENGINE PARTS BUILDING IS NOW PARTIALLY EQUIPPED AND AVAILABLE FOR USE."

# General Information

1911  
No. 1000

1911  
No. 1000

The following information is for your information only and should not be used for any other purpose. It is intended to provide a general overview of the current situation and to help you understand the various factors involved. The information is based on the most recent data available and is subject to change without notice. It is not intended to be a substitute for professional advice and should not be used as such. The information is provided for your information only and should not be used for any other purpose. It is intended to provide a general overview of the current situation and to help you understand the various factors involved. The information is based on the most recent data available and is subject to change without notice. It is not intended to be a substitute for professional advice and should not be used as such.

RYAN IS NOW WELL STARTED, THE COMPANY EXECUTIVE REPORTED, ON PRODUCTION OF A ROCKET MOTOR WHICH PREVIOUSLY HAD BEEN BUILT ONLY IN EXPERIMENTAL QUANTITIES. THE ROCKET MOTOR ITSELF IS NOT A RYAN DEVELOPMENT, BUT THE COMPANY HAS BEEN RESPONSIBLE FOR DEVELOPING THE TECHNIQUES NECESSARY TO MANUFACTURE IT IN PRODUCTION QUANTITIES.

STOCKHOLDERS WERE ALSO INFORMED THAT THE COMPANY IS IN THE EARLY STAGES OF VOLUME MANUFACTURE OF TWO DIFFERENT JET ENGINE AFTERBURNER DESIGNS, AND THAT THIS WORK IS SCHEDULED FOR CONTINUED EXPANSION. RYAN REPORTED THAT AFTERBURNER MANUFACTURE WILL BE AN IMPORTANT PART OF THE COMPANY'S JET ENGINE ACTIVITIES IN THE FUTURE SINCE THE PRINCIPLE OF AUGMENTING JET ENGINE THRUST IS NOW BECOMING A STANDARD PRACTICE IN MILITARY AIRCRAFT.

THE PRESENT BOARD OF DIRECTORS, CONSISTING OF T. CLAUDE RYAN, PRESIDENT; G. C. WOODARD, EXECUTIVE VICE-PRESIDENT AND TREASURER; EARL D. PRUDDEN, VICE-PRESIDENT; C. ARNHOLT SMITH, SAN DIEGO BANKER AND INDUSTRIALIST; AND MELVIN H. LOCKETT, PARTNER IN AN ACCOUNTING FIRM, WERE RE-ELECTED.

FOLLOWING THE ANNUAL MEETING OF STOCKHOLDERS, THE BOARD OF DIRECTORS MET AND RE-NAMED THE OFFICERS OF THE COMPANY. IN ADDITION TO RYAN, WOODARD AND PRUDDEN, THE BOARD APPOINTED C. A. STILLWAGEN, SECRETARY; L. L. UNDERWOOD, CONTROLLER; AND D. H. OCKERMAN, ASSISTANT SECRETARY AND ASSISTANT TREASURER.

# # #

3-19-52W







SAN DIEGO 1  
AVIATION MAGS 1 & 2  
FIN. MAGS & DAILY PRESS  
SECURITY LIST

TECHNICAL RED  
NEWSPAPERS RED  
WIRE SERVICES  
MAGAZINES GENERAL

FOR RELEASE  
THURSDAY  
APRIL 3

## NEWS BUREAU

BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN

# Ryan Aeronautical Company

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

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BOOST BACKLOG TO \$70 MILLION

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# General Information



1234 Main Street  
City, State, ZIP  
Phone: (555) 123-4567

Page 1 of 1

Section 1: Introduction

The purpose of this document is to provide a comprehensive overview of the project's goals and objectives. It is intended for all stakeholders involved in the project, including management, staff, and external partners. The document outlines the project's scope, timeline, and key milestones, as well as the roles and responsibilities of the project team. It also discusses the project's budget and resource requirements, and provides a summary of the project's risks and challenges. The information presented in this document is intended to serve as a guide for the project's execution and to ensure that all stakeholders are aligned and working towards the same goals.

Section 2: Project Objectives

The primary objective of the project is to develop a new product line that meets the needs of our target market. This objective is supported by several secondary objectives, including: increasing sales revenue, expanding our market share, and improving customer satisfaction. The project team will focus on identifying market opportunities, conducting market research, and developing a product that is differentiated from our competitors. The project will also aim to establish a strong brand identity and build a loyal customer base. The project's success will be measured by the achievement of these objectives and the overall performance of the project.

PRODUCTION OF THE REFUELING PODS WHICH ARE INTERCHANGEABLE WITH THE RYAN-BUILT CARGO DOORS AND ARE THE PRINCIPAL ITEM NEEDED TO CONVERT THE HUGE FOUR-ENGINE TRANSPORTS FROM CARGO PLANES TO FLYING TANKERS IN A FEW HOURS.

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# # #

4-1-52W



MAILING OUT: 4-4-52

FROM: NEWS BUREAU  
RYAN AERONAUTICAL COMPANY  
SAN DIEGO 12, CALIFORNIA

TO: SAN DIEGO (KEEN DIST.)  
AVIATION MAGS 1 AND 2  
TECHNICAL RED  
FINANCIAL DAILY PRESS

PIX TO: AVIATION WEEK  
AMER. AVIATION  
WEST. AVIATION  
AERO DIGEST  
AVIATION AGE  
IRON AGE

RYAN AERONAUTICAL APPOINTMENTS

LIMBACH AS WORKS MANAGER

LAWRENCE M. LIMBACH, 41, FORMERLY MANAGER OF OPERATIONS, STEEL AND TUBES DIVISION, REPUBLIC STEEL CORP., CLEVELAND, HAS BEEN APPOINTED WORKS MANAGER OF THE RYAN AERONAUTICAL COMPANY, IT WAS ANNOUNCED TODAY BY G. C. WOODARD, EXECUTIVE VICE-PRESIDENT.

THE POSITION OF WORKS MANAGER HAS BEEN REACTIVATED DUE TO RYAN'S INCREASED VOLUME OF PRODUCTION. DIVISION MANAGERS OF THE ACTIVITIES WHICH WILL REPORT TO THE WORKS MANAGER HAVE, IN THE IMMEDIATE PAST, BEEN DIRECTLY UNDER EXECUTIVE VICE-PRESIDENT WOODARD, TO WHOM LIMBACH AS WORKS MANAGER NOW REPORTS. THESE INCLUDE THE PRODUCTION DIVISION AND THE FACTORY SERVICES DIVISION WITH THEIR MAIN DIRECT SUPPORTING DEPARTMENTS. MANAGERS OF THE PRODUCTION AND FACTORY SERVICES DIVISIONS ARE H. J. VAN DER LINDE AND H. P. RASP, RESPECTIVELY.

A NATIVE OF MASSILLON, OHIO, LIMBACH IS A GRADUATE OF THE STAUNTON MILITARY ACADEMY, AND OF THE CASE INSTITUTE OF TECHNOLOGY, IN METALLURGICAL ENGINEERING. HE STARTED WITH REPUBLIC IN 1933 AS AN APPRENTICE IN THE SAME DIVISION HE HEADED WHEN, LAST MONTH, HE LEFT THAT FIRM'S EMPLOY AFTER 19 YEARS. HE SERVED SUCCESSIVELY AS ASSISTANT CHIEF METALLURGIST, ASSISTANT MANAGER OF THE DIVISION'S ELYRIA, OHIO PLANT, ASSISTANT MANAGER AND MANAGER OF THE CLEVELAND PLANT. THE DIVISION, PRODUCING TUBULAR PRODUCTS, COMPRISES FOUR PLANTS WITH 2000 EMPLOYEES, AT CLEVELAND, ELYRIA, DETROIT AND BROOKLYN, NEW YORK

# # #

4-3-52K

MEMORANDUM FOR THE DIRECTOR  
FROM: SAC, NEW YORK  
SUBJECT: [Illegible]

[Illegible Title]

[The following text is extremely faint and largely illegible. It appears to be a memorandum body containing several paragraphs of text, possibly including a summary, background information, and recommendations. The content is too faded to transcribe accurately.]



**NEWS BUREAU**

**BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN**

MAILING OUT: 4-22-52  
AVIATION MAGS 1  
TECHNICAL RED  
FINANCIAL DAILY & MAGS

# *Ryan Aeronautical Company*

**LINDBERGH FIELD • SAN DIEGO 12, CALIF.**

## RYAN AWARDED CONTRACT FOR EXHAUST GAS CONVERTERS

A CONTRACT FOR DEVELOPMENT AND TESTING OF AN EXHAUST GAS CONVERTER HAS BEEN RECEIVED FROM THE U. S. AIR FORCE BY RYAN AERONAUTICAL COMPANY, SPECIALISTS IN THE FIELD OF HIGH TEMPERATURE EXHAUST SYSTEM ENGINEERING, T. CLAUDE RYAN, PRESIDENT, ANNOUNCED TODAY.

KNOWN AS A "DE-CORRODER," MODEL 57, THE RYAN DEVICE IS DESIGNED TO REMOVE FROM EXHAUST GASES THE CHEMICAL CONTAMINANTS WHICH ATTACK AIRCRAFT STRUCTURAL MATERIALS.

UTILIZATION OF THE VAST AMOUNTS OF HEAT ENERGY CONTAINED IN THE GASES GENERATED BY AIRCRAFT POWER PLANTS, FOR CABIN HEATING, WING ANTI-ICING AND SIMILAR APPLICATIONS, HAS BEEN HAMPERED BY THE HIGHLY CORROSIVE EFFECT WHICH THESE GASES HAVE UPON AIRCRAFT METALS SUCH AS ALUMINUM AND MAGNESIUM ALLOYS. IN RELATIVELY FEW HOURS OF EXPOSURE THE CHEMICALS IN THE GASES WILL PENETRATE THESE ALLOYS TO AN ALARMING DEGREE BY CORROSIVE ATTACK.

THE RYAN "DE-CORRODER" HAS SUCCESSFULLY DEMONSTRATED ITS EFFECTIVENESS IN REMOVING CONTAMINANTS SO THAT THE EXHAUST GASES MAY SAFELY BE BROUGHT INTO CONTACT WITH AIRCRAFT STRUCTURES. THIS DEVELOPMENT HAS IMPORTANT SIGNIFICANCE TO THE HARNESSING OF EXHAUST GAS ENERGY BY MAKING POSSIBLE THE DESIGN AND USE OF LIGHTWEIGHT ALUMINUM ALLOY HEAT EXCHANGERS, DUCTS AND PIPING. AT PRESENT, MANY OF THESE COMPONENTS HAVE TO BE FABRICATED FROM STAINLESS STEELS WHICH RESULTS IN SUBSTANTIALLY MORE WEIGHT THAN OTHERWISE REQUIRED.

*[Faint, illegible text at the top of the page, possibly a header or title.]*

*[Faint, illegible text in the top right corner, possibly a date or reference.]*

*[The main body of the page contains several paragraphs of extremely faint, illegible text. The text is too light to be transcribed accurately.]*



ORIGINAL RESEARCH ON THE DECONTAMINATING UNIT WAS ACCOMPLISHED WITH EXTENSIVE WORK WHICH THE RYAN ENGINEERING DEPARTMENT CONDUCTED UNDER PREVIOUS U. S. AIR FORCE EXPERIMENTAL CONTRACTS. THE NEW CONTRACT WILL PROVIDE FOR FURTHER IMPROVEMENT OF THE DEVICE AND ITS DEVELOPMENT FOR USE WITH BOTH JET AND INTERNAL COMBUSTION ENGINES.

# # #

4-22-52W

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MAILING OUT: 4-29-52  
SAN DIEGO RED (KENN)  
AVIATION MAGS 1  
FINANCIAL DAILY PRESS

# NEWS BUREAU • RYAN AERONAUTICAL COMPANY

BILL WAGNER

BOB SMITH HAROLD KEEN

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

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## RYAN DECLARES QUARTERLY DIVIDEND

A REGULAR QUARTERLY DIVIDEND OF 10 CENTS PER SHARE  
ON THE COMMON CAPITAL STOCK OF THE RYAN AERONAUTICAL CO.  
HAS BEEN DECLARED BY THE BOARD OF DIRECTORS AT A REGULAR  
MEETING. THIS CASH DIVIDEND IS PAYABLE JUNE 12, 1952  
TO STOCKHOLDERS OF RECORD MAY 22, 1952.

4-29-52W

1000  
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1000  
1000



NEWS BUREAU & RYAN AERONAUTICAL COMPANY

111 WADSWORTH

111 WADSWORTH ST. CAMBRIDGE, MASS.

FOR CATALOGS AND INFORMATION

THE AIRCRAFT ENGINEERING DEPARTMENT

A complete line of aircraft engines is available for sale or lease. The engines are of the latest design and are built to the highest standards of quality. They are suitable for use in a wide variety of aircraft and are available in a wide range of horsepower ratings. For more information, please contact the Sales Department.

111



**NEWS BUREAU**

**BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN**

MAILING OUT: 5/1 - 5-5  
AVIATION MAGS 1 FINANCIAL DAILY  
NEWSPAPERS RED FINANCIAL MAGS  
TECH. RED \* PHOTO SYND. RED)  
WIRE SERVICES RED PICTURE MAGS ) PIX

FOR RELEASE SUNDAY,  
MAY 4, 1952

\*PIX **Ryan Aeronautical Company**

**LINDBERGH FIELD • SAN DIEGO 12, CALIF.**

RYAN BUILDING WORLD'S LARGEST EXTERNAL

FUEL TANKS FOR BOEING B-47B STRATOJET

THE WORLD'S FASTEST KNOWN BOMBER, THE NEW BOEING B-47B, HAS INCREASED ITS COMBAT RANGE CONSIDERABLY THROUGH INSTALLATION OF RYAN EXTERNAL FUEL TANKS, THE LARGEST EVER MOUNTED ON AN AIRPLANE, IT HAS NOW BEEN OFFICIALLY REVEALED FOR THE FIRST TIME.

THE HUGE STREAMLINED TANKS, CAPACITY OF WHICH REMAINS SECRET, ARE UNDER CONSTRUCTION IN MASS QUANTITIES AT RYAN AERONAUTICAL COMPANY, WHICH HAS SHIPPED HUNDREDS TO BOEING'S WICHITA, KAN. PLANT, WHERE THE "BOMBER WITH FIGHTER SPEED" IS IN LARGE SCALE PRODUCTION.

SUSPENDED ONE UNDER EACH WING, BETWEEN THE TIP AND INBOARD JET ENGINE PODS, THE TANKS WILL ENABLE THE B-47B'S TO COMPLETE LONG-RANGE MISSIONS, CARRYING MORE THAN 20,000 POUNDS OF BOMBS.

ANOTHER STRATOJET FEATURE EXTENDING ITS FLIGHT RANGE IS THE MID-AIR REFUELING SYSTEM, IN WHICH RYAN ALSO PLAYS A MAJOR ROLE. BEING BUILT BY RYAN ARE AFT FUSELAGE SECTIONS AND REFUELING PODS FOR THE BOEING KC-97 STRATO-TANKER. AN OPERATOR STATIONED IN THE POD CONTROLS A "FLYING BOOM" THROUGH WHICH FUEL FLOWS IN MID-AIR FROM THE STRATO-TANKER TO THE B-47B BOMBER.

STILL ANOTHER RYAN CONTRIBUTION TO THE EFFECTIVENESS OF THE B-47B ARE MANY HIGH-TEMPERATURE COMPONENTS FOR THE NEW SERIES GENERAL ELECTRIC J-47 ENGINES, WHICH DEVELOP MORE THAN 5800 POUNDS OF THRUST EACH, COMPARED WITH 5200 POUNDS OF THRUST FOR ENGINES USED ON THE EARLIER B-47 MODELS. TAIL PIPES WHICH CARRY THE SEARING JET GASES FROM THE ENGINE TO THE ATMOSPHERE ALSO ARE BEING BUILT ON RYAN PRODUCTION LINES.

THE UNIVERSITY OF CHICAGO  
LIBRARY

Faint, illegible text covering the majority of the page, likely bleed-through from the reverse side of the document.

WITH THE LARGEST NUMBER OF ELECTRIC RESISTANCE WELDING MACHINES IN THE INDUSTRY, RYAN USES THIS EQUIPMENT FOR JOINING THE ALUMINUM ALLOY SHEETS IN THE LIGHTWEIGHT, TORPEDO-SHAPED DESIGN.

MORE THAN 30,000 ELECTRIC SPOT WELDS ARE EMPLOYED IN EACH TANK. ALL CIRCUMFERENTIAL JOINTS ARE CLOSED WITH TWO ROWS OF SPOT WELDS AND ONE ROW OF SEAM WELDING TO ATTAIN A GAS-TIGHT SEAM. THE SINGLE LONGITUDINAL SEAM, WHICH RUNS THROUGH THE INDIVIDUAL TANK SECTIONS, IS FUSION-WELDED ON AUTOMATIC HELIARC WELDING MACHINES. THIS PROVIDES A STRONG, FLAT SEAM NO THICKER THAN THE METAL ITSELF AND DOES NOT REQUIRE SPLICE PLATES.

THE GIANT SPOT WELDING MACHINES CAN SQUEEZE ALUMINUM ALLOY SHEETS TOGETHER WITH 10,000 POUNDS PRESSURE, AND CAN PRODUCE MORE THAN 200 SPOT WELDS PER MINUTE, CRAMMING NINE OF THEM INTO A RUNNING INCH.

BECAUSE OF THE DIFFICULTY OF CLEANING THE METAL, AN ALLOY OF ALUMINUM WITHOUT CLADDING, RYAN HAD TO DEVELOP A NEW CLEANING AGENT, RACO 34, WHICH REMOVES ALL OXIDES WITH SMOOTH UNIFORMITY.

DELIVERIES OF THE NEW B-47B STRATOJETS ARE BEING MADE IN INCREASING NUMBERS TO THE AIR FORCE'S STRATEGIC AIR COMMAND. THEY ARE THE FIRST LARGE PLANES TO UTILIZE SHARPLY SWEEPED BACK WINGS AND TAIL SURFACES. BESIDES THE SIX TURBOJET ENGINES, 18 INTEGRAL ROCKET-ASSIST UNITS ARE MOUNTED IN THE REAR FUSELAGE, PROVIDING AN ADDITIONAL 20,000 POUNDS OF THRUST.

ONLY THREE MEN ARE NEEDED TO OPERATE THE B-47B, WHICH WEIGHS ALMOST 93 TONS WHEN FULLY LOADED FOR COMBAT. AN EXPERIMENTAL XB-47, WITH LESS POWERFUL J-35 ENGINES, STILL HOLDS THE TRANSCONTINENTAL SPEED RECORD, SET IN 1949, WHEN IT FLEW FROM MOSES LAKE, WASH. TO WASHINGTON, D. C., 2,289 MILES NON-STOP IN 3 HOURS, 46 MINUTES, AN AVERAGE SPEED OF 607 MILES AN HOUR.

# # #

THE FIRST PART OF THE REPORT IS A SUMMARY OF THE WORK DONE DURING THE YEAR. THE SECOND PART IS A DETAILED ACCOUNT OF THE RESEARCH WORK DONE IN THE LABORATORY.

THE RESEARCH WORK WAS DONE IN THE LABORATORY OF THE DEPARTMENT OF CHEMISTRY, UNIVERSITY OF TORONTO. THE WORK WAS DONE UNDER THE SUPERVISION OF THE DEPARTMENT HEAD, DR. J. H. HARRIS.

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**NEWS BUREAU**

**BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN**

MAILING OUT: 5-23-52

S.D. RED - TAB    TECH. RED - TAB  
A.M. (1) - ALL    FIN. MAGS- "  
A.M. (2) - ~~TAB~~    " DAILY "  
A.M. (3) - ~~TAB~~    FOR. RED - "

FOR RELEASE  
TUESDAY, MAY 27

# *Ryan Aeronautical Company*

WIRE SERVICES - TAB  
NEWS RED - "  
MAGS GEN. - "  
ORG. - "

**LINDBERGH FIELD • SAN DIEGO 12, CALIF.**

## RYAN GETS NEW AEROJET CONTRACT

### FOR MISSILE MOTOR COMPONENTS

A CONTRACT FOR PRODUCTION OF MISSILE MOTOR COMPONENTS OF A TYPE RECENTLY DEVELOPED BY AEROJET ENGINEERING CORP., HAS BEEN AWARDED BY AEROJET TO RYAN AERONAUTICAL COMPANY, SPECIALISTS IN THE FABRICATION OF HIGH-TEMPERATURE METALS, T. CLAUDE RYAN, PRESIDENT OF THE LATTER FIRM, ANNOUNCED TODAY.

FOLLOWING OTHER ORDERS FOR MISSILE MOTORS, THIS LATEST CONTRACT ESTABLISHES RYAN'S POSITION IN THE ROCKET ENGINE FIELD ON A FIRM BASIS COMPARABLE TO THAT IT HAS ALREADY ESTABLISHED IN THE JET ENGINE AND PISTON ENGINE FIELDS FOR PRODUCTION OF HEAT-RESISTANT COMPONENTS.

THIS IS THE SECOND AEROJET ROCKET PROJECT FOR WHICH RYAN HAS BEEN SELECTED AS A PRODUCTION SOURCE. PREVIOUSLY RYAN BUILT MAJOR COMPONENTS OF THE AEROBEE HIGH-ALTITUDE SOUNDING ROCKET.

CURRENTLY, RYAN IS ALSO BUILDING COMPLETE ROCKET MOTORS FOR SURFACE-TO-SURFACE MISSILES UNDER A PRODUCTION CONTRACT FROM FIRESTONE TIRE AND RUBBER CO. RYAN ALSO SUPPLIED THIS SAME ROCKET MOTOR UNDER PREVIOUS EXPERIMENTAL CONTRACTS TO DOUGLAS AIRCRAFT COMPANY. THE MOTOR WAS DEVELOPED BY THE JET PROPULSION LABORATORY OF THE CALIFORNIA INSTITUTE OF TECHNOLOGY.

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Two lines of centered handwritten text, likely a subject line or recipient information.

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**NEWS BUREAU**

**BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN**

MAILING OUT; 5-26-52  
SAN DIEGO RED - TAB  
AVIATION MAGS - (1) - TAB  
AVIATION MAGS - (2) - "  
TECHNICAL RED - TAB

FIN. MAGS & WRITERS - ALL  
" DAILY PRESS - "  
FOR RELEASE  
WIRE SERV.-TAB  
NEWS. RED - "  
THURSDAY, MAY 29

# *Ryan Aeronautical Company*

**LINDBERGH FIELD • SAN DIEGO 12, CALIF.**

CUSTOMERS PLACE ORDERS FOR \$4

MILLION RYAN EXHAUST SYSTEMS

NEW ORDERS FOR EXHAUST SYSTEMS, TOTALING IN EXCESS OF \$4,000,000, HAVE BEEN RECEIVED BY RYAN AERONAUTICAL COMPANY DURING THE PAST MONTH, T. CLAUDE RYAN, PRESIDENT, ANNOUNCED TODAY.

A MAJOR PORTION OF THE NEW BUSINESS CALLS FOR LARGE SCALE PRODUCTION OF RYAN EXHAUST SYSTEMS FOR DOUGLAS AIRCRAFT COMPANY'S C-124 GLOBEMASTER, THE AIR FORCE'S HUGE CARGO TRANSPORT.

OTHER PRINCIPAL CONTRACTS OF THE PAST 30 DAYS ARE WITH CONSOLIDATED VULTEE FOR CERAMIC COATED COLLECTORS AND OTHER EXHAUST EQUIPMENT FOR THE CONVAIR 240 AND 340 COMMERCIAL AIRLINERS; PIASECKI HELICOPTER CORP. FOR EXHAUST COLLECTOR FOR HUP AND H-21 TRANSPORT-RESCUE HELICOPTERS, AND WITH THE AIR FORCE FOR EQUIPMENT FOR B-25S AND A NUMBER OF OTHER MILITARY PLANES.

DOUGLAS AIRCRAFT ALSO PLACED ADDITIONAL ORDERS FOR RYAN EXHAUST SYSTEMS FOR THEIR EXPANDING DC-6 COMMERCIAL TRANSPORT PRODUCTION PROGRAM.

DELIVERIES OF THE RYAN AERONAUTICAL COMPANY ARE CURRENTLY RUNNING IN EXCESS OF TWO-AND-A-HALF MILLION DOLLARS MONTHLY, RYAN SAID.

# # # #

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Section header in the middle of the page, possibly "General Instructions".

Main body of the document containing several paragraphs of text, which is mostly illegible due to blurriness.



**NEWS BUREAU**

**BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN**

MAILING OUT: 5-28-52

AM-1 - ALL

AM-2 - TAB

AM-3 - TAB

TECH. RED - TAB

FIN. DAILY PRESS - TAB

FOREIGN RED - TAB

WIRE SERVICES - TAB

NEWSPAPERS RED - TAB

***Ryan Aeronautical Company***

**LINDBERGH FIELD • SAN DIEGO 12, CALIF.**

Disclosure of a revolutionary new development in the air transport field -- use of externally mounted tanks for the entire fuel supply -- followed the recent first test flights of the Fairchild C-119H at Hagerstown, Maryland.

Suspended pod-like beneath the wing of the new, enlarged long-range C-119H "Flying Boxcar" are two streamlined tanks, built by Ryan Aeronautical Company. They are the largest fuel carriers of their kind in the world.

The tanks are similar to the hundreds which have been built by Ryan for the Boeing B-47B Stratojet bomber. However, in the B-47, the tanks supplement the internal fuel capacity of the plane and can be dropped when the gasoline is expended. In the Fairchild C-119H, the tanks are permanently secured to the wing by means of struts and are the only source of fuel.

Often advocated for transport planes by safety engineers, these Ryan tanks of the new Fairchild replace the 22 internal wing fuel cells of other C-119 models and provide several advantages.

Complexity of wing construction to accommodate internal fuel cells is reduced. A 600-pound weight saving is accomplished by eliminating or reducing fittings, connections, access doors, etc. Maintenance is simplified and fire hazard is cut down. Vulnerability from gunfire is less because under the old system, virtually the entire wing is the "inflammable" area. For combat protection, a self-sealing "blanket" which fits over the external tanks can be quickly installed at the front.

George Washington University  
School of Business Administration

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1000 MONTGOMERY AVENUE  
WASHINGTON, D.C. 20005

[The body of the document contains several paragraphs of text that are extremely faint and illegible due to the quality of the scan. The text appears to be a formal letter or report, possibly related to a business or academic matter.]



## NEWS BUREAU

BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN

Mailing Out: 6-3-52 Tech. Red - Tab  
San Diego Red 1 Tab Fin. Mags - All  
Aviation Mags 1 - All " Daily- " For Release  
Aviation Mags 2 - Tab Wire Services - Tab Wednesday, June 4  
Aviation Mags 3 - Tab Newspapers Red - "

# Ryan Aeronautical Company

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

## RYAN AERONAUTICAL REPORTS

\$347,675 SIX MONTHS PROFIT

A net profit of \$347,675 for the first half of the 1952 fiscal year of the Ryan Aeronautical Company was reported today by T. Claude Ryan, president, in an unaudited interim statement to stockholders. Earnings for the six months period ending April 30 were equivalent to 88 cents per share on the net outstanding shares.

Ryan's earnings for the full 1951 fiscal year were \$402,604, equal to \$1.02 per share. A half-year report was not issued in 1951.

Gross income for the six months just ended was \$13,747,077, against \$8,422,281 for the comparable period of the prior year. First quarter 1952 sales were \$6,039,633, while second quarter gross revenue was \$7,707,444.

"Of the 88 cents net profit for 1952's first half, 42 cents was earned in the first quarter and 46 cents in the second quarter," Ryan said.

On April 30, the company's net book value stood at an all-time high of \$5,476,908. This was equivalent to \$13.91 per net outstanding share, compared with \$13.55 at the end of the first quarter, and \$13.25 at the close of the 1951 fiscal year.

Of its \$12 million bank credit, Ryan Aeronautical Company was using \$11 million on April 30. "To finance the still larger scale of business scheduled," Ryan told stockholders, "it may be necessary to apply for a further increase in the loan commitment."

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[The following text is extremely faint and illegible due to the quality of the scan. It appears to be a multi-paragraph document.]



"Good progress continues to be made in equipping the new \$300,000 company-owned jet engine parts building for accelerated production. Many of the most advanced type machine tools for the quantity production of special jet and rocket engine components are rapidly being installed in this building. Its 75,000 square feet of floor space will shelter approximately \$2 million worth of new machinery, principally for working high-temperature, precision items of special alloys."

Ryan also reported that within the past fortnight the company had been permitted to disclose that the huge Ryan-designed external fuel tanks it has been building for the past two years are for use on one of America's most important warplanes, the 600 mph Boeing B-47B Stratojet bomber.

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Mailing Out: 6-26--52

AM-1 - Tab

News. Red - Tab

AM-2 - "

Mags. Gen. - "

Wire Services "

Army/Navy - "

**NEWS BUREAU**

***Ryan Aeronautical Company***

**BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN**

**LINDBERGH FIELD • SAN DIEGO 12, CALIF.**

**YOUNG RYAN FOLLOWS**

**FATHER'S FOOTSTEPS**

History is repeating itself in the Ryan family.

At about the same age T. Claude Ryan was when he received his Army Air Corps pursuit pilot's rating, back in 1921, his son, David, now 22 years old, has just won his Air Force commission as a jet fighter pilot. At ceremonies at Williams Air Force Base, Arizona, Dave had his wings pinned on by his father, who founded Ryan Aeronautical Company 30 years ago and is still its president.

Second Lieut. David Ryan has bridged the gap of three decades between the Liberty-powered De Havillands his dad used on peacetime missions of forest fire patrol, to the F-86 Sabrejets he will soon fly in combat in Korea.

Dave began his military career when he volunteered as an Air Force private and went through basic training at Lackland Air Force Base, Texas. Later he was accepted for aviation cadet training and received pilot instruction at Bartow, Florida for more than half a year. At his last assignment, Williams Air Force Base, he trained for six months in T-33 two-place jet trainers and in F-80 Shooting Stars.

With 200 hours of flight training behind him, 2nd Lieut. Ryan has reported to Nellis Air Force Base, Las Vegas for ten weeks' gunnery training in F-80's and F-86's. This will be followed by brief processing at Camp Stoneman, California en route to Korea.

On hand to see Dave's father pin on his wings was the newly commissioned officer's mother and two brothers, Jerome and Stephen. Jerry, the older of the two, has been in the Air Force R.O.T.C. at Stanford University.

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NEWS BUREAU

BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN

Mailing Out: 7-24-52      Financial Daily Press - All  
Aviation Mags 1 (All)      Wire Services For Release  
Technical Red (Tab)  
Financial Mags (All)      Friday, July 25

# Ryan Aeronautical Company

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

\$7 MILLION IN NEW CONTRACTS

SIGNED BY RYAN AERONAUTICAL

New orders totaling \$7,000,000 for airframe parts and aircraft engine components have been received by Ryan Aeronautical Company in the past month, T. Claude Ryan, president, disclosed today.

With deliveries currently running at approximately \$3,000,000 per month, the new business resulted in a net gain of \$4,000,000 in the backlog of unfilled orders on hand, which now stand at more than \$70,000,000.

Largest of the contracts closed in June was with General Electric for additional quantities of aft frames, transition liners and inner combustion chambers for J-47 jet engines.

From Boeing Airplane Company substantial orders were received for C-97 fuselage parts; exhaust systems for B-50 bombers and C-97 cargo planes; and jet engine tail pipes and external fuel tanks for the B-47 Stratojet.

Other major contracts are with Continental Motors Corp. for exhaust manifolds for M-48 tanks, latest versions of the famed General Patton model; and with Douglas Aircraft Company and Consolidated Vultee for exhaust systems for commercial and military transports.

Completing the \$7,000,000 new order list were contracts from Canadair and Aeronca for exhaust systems for Beech's new twin-engine T-36 trainer and from Piasecki for exhaust systems for helicopters.

# # #

Republic of the Philippines  
Department of Education  
Division Office - [illegible]



[illegible title]

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**NEWS BUREAU**

**BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN**

Mailing Out: 7-25--52  
Aviation Mags 1 (Tab)  
Fin. Mags (All)  
Fin. Daily (All)  
Wire Services -(Tab)

32,  
63  
32

For Release  
Saturday, July 26

# *Ryan Aeronautical Company*

**LINDBERGH FIELD • SAN DIEGO 12, CALIF.**

## QUARTERLY DIVIDEND DECLARED

BY RYAN AERONAUTICAL COMPANY

A regular quarterly dividend of 10 cents per share on common capital stock was declared yesterday (Friday) by the board of directors of the Ryan Aeronautical Company. The 10-cent cash dividend is payable September 12 to stockholders of record August 22.

This will be Ryan's eighth consecutive quarterly dividend, and the 23rd dividend payment since incorporation.

7-23-52W

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NEWS BUREAU

BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN

Mailing Out: 8-5-52  
S. D. Red - Tab  
Avia. Mags 1 - Tab  
Avia. Mags 2 - Tab

Fin. Mags - All  
Fin. Dailies - All  
Wire Services - Tab

# *Ryan Aeronautical Company*

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

## STILLWAGEN NAMED TREASURER

### OF RYAN AERONAUTICAL COMPANY

C. A. Stillwagen has been named to the office of Treasurer of the Ryan Aeronautical Company by the Board of Directors. His new assignment is in addition to his post as Secretary of the corporation.

The Finance and Accounting Division, headed by L. L. Underwood as Controller, will report to G. C. Woodard, Executive Vice-President, through Stillwagen instead of direct as in the past. Woodard formerly held the position of Treasurer in addition to his other executive management assignments.

Stillwagen at one time was Controller, first of the subsidiary Ryan School of Aeronautics and later of the Company. Active in civic and business organizations, he is president of the San Diego chapter of the National Association of Cost Accountants.

# # #

8-4-52W



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**NEWS BUREAU**

**BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN**

Mailing Out: 8-22-52  
San Diego Red - Tab  
Aviation Mags 1 - All

Aviation Mags (2) - Tab  
Aviation Mags (3) - Tab  
Technical Red - All  
Fin. Mags & Writers - Tab  
Fin. Daily Press - Tab  
Foreign Red - Tab  
Wire Services - Tab

**Ryan Aeronautical Company**

**LINDBERGH FIELD • SAN DIEGO 12, CALIF.**

## FIRE-SUPPRESSION BY FUEL TANK

### PURGING REVEALED BY RYAN AERO

Elimination of the ever-present threat of fire in aircraft fuel tanks during flight is the goal of research that has been conducted by the Ryan Aeronautical Company, San Diego, California, for the Air Force, it has just been revealed.

Kept under wraps for more than a year, some details of the project are disclosed in the current issue of the plant publication, "Ryan Reporter."

Ryan's studies were aimed at minimizing the in-flight danger of explosions due to combustible mixtures of fuel-air vapors in fuel tanks, as well as in the surrounding areas and in engine nacelles. This can be performed through a process of "purging" the dangerous gases.

Need for such a system was pointed up in World War II, when numerous aircraft were destroyed by fuel tank fires and explosions. Research was undertaken in the United States at the Cornell Aeronautical Laboratory and has been furthered by Ryan and other industrial firms.

It was realized that the danger of explosion or fire is comparatively small when fuel tanks are full. But as the fuel is used, it is replaced by air which absorbs gasoline vapors and forms a combustible air-fuel mixture. How to remove this potential explosive has been the objective of Ryan researchers.

They decided that if an inert gas containing little or no oxygen could be introduced in the fuel tank areas at the same rate as the fuel is withdrawn

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the oxygen content of the air would be maintained below the combustible point. The difficulty has been devising an economical, light weight method of funneling such an inert gas into the critical areas.

One system studied involves carrying non-combustible carbon dioxide or nitrogen under pressure in metal cylinders. Another calls for a small independent engine designed to generate inert gases. A third system suggests the use of exhaust gases from the aircraft's engines.

Although the "Ryan Reporter" article did not specify which of these purging methods was developed by Ryan, the illustrations accompanying the story, and the company's leadership in making exhaust systems, indicated that the company's engineers have been favoring the exhaust gas system.

"The use of exhaust gas for purging," states the article, "has definite advantages at least insofar as logistical simplicity is concerned, for it automatically provides a continuous source of inert gas."

Disclosure of the purging experiments was recently approved by the Department of Defense security review branch, not long after another development in an allied field was reported. Because of Ryan's experience in "purging" and in high temperature exhaust system engineering generally, the Air Force recently awarded the company a contract for creation and testing of an exhaust gas converter, or "de-corroder."

Already the Ryan "de-corroder" has successfully demonstrated its effectiveness in removing corrosive chemicals from gases generated by aircraft power plants, which can be used for cabin heating, wing anti-icing, purging and similar applications. In the past, these chemicals have caused extensive damage to aircraft metals. Use of a "de-corroder" will make possible harnessing of exhaust gas energy and at the same time using lighter weight materials. The "de-corroder" can be used with both jet and internal combustion engines.

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NEWS BUREAU

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Mailing Out: 8-22-52  
Aviation Mags(1) - All  
Aviation Mags(2) - Tab  
Financial Daily Press - Tab  
Financial Mags & Writers - Tab

# Ryan Aeronautical Company

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

RYAN NAMES RICHARD WHITE

WASHINGTON REPRESENTATIVE

Capt. Richard E. White, USNR, former chief project engineer in the production division of Ryan Aeronautical Company has been appointed the company's Washington, D. C., representative for contract administration, effective September 1.

C. A. Stillwagen, secretary-treasurer at Ryan, said the company needs a resident representative with engineering background at the nation's capital because of a growing number of military contracts.

White will maintain close contact with high level officers, it was explained.

The aeronautical firm at present has four prime contracts on advanced-type projects. Two others are being negotiated. Still more are in prospect, officials said.

# # #

8-20-52K

THE UNIVERSITY OF CHICAGO  
DEPARTMENT OF CHEMISTRY  
530 SOUTH EAST ASIAN AVENUE  
CHICAGO, ILLINOIS 60607



RECEIVED  
DEPARTMENT OF CHEMISTRY  
UNIVERSITY OF CHICAGO  
530 SOUTH EAST ASIAN AVENUE  
CHICAGO, ILLINOIS 60607

TO: [Illegible]

FROM: [Illegible]

SUBJECT: [Illegible]

[Illegible text follows, appearing to be a letter or report with several paragraphs of text.]





**NEWS BUREAU**

**BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN**

Mailing Out: 8-27/28/-52  
To: San Diego Red - All  
A.M. 1 - All Tech. Red - Tab  
A.M. 2 - Tab Fin. Mags - all  
A.M. 3 - Tab Fin. Daily- all

wire Services - All  
Newspapers Red - Tab  
For Release Friday  
29 August 1952

# *Ryan Aeronautical Company*

**LINDBERGH FIELD • SAN DIEGO 12, CALIF.**

## RYAN AERONAUTICAL PROFIT

**\$1.55 FOR FIRST NINE MONTHS**

Net profit of the Ryan Aeronautical Company for the nine months ended July 31 was \$609,669, or \$1.55 per net outstanding share, G. C. Woodard, executive vice-president, reported to stockholders today in an unaudited statement.

For the full 12 months of the 1951 fiscal year, ended October 31, net income was \$402,604, equal to \$1.02 per share.

The gross business volume for the nine-month period just closed was \$22,219,829, compared with \$22,277,175 for the full 1951 fiscal year.

"The working capital position," Woodard said, "shows marked improvement and is now at the highest figure in the company's history. On July 31, working capital stood at \$4,037,123, an increase of \$712,515 compared with \$3,324,608 on October 31, 1951.

"Net worth of the company also is at an all-time high of \$5,694,982. This is equal to \$14.46 per share on the net outstanding shares, and represents an increase of \$1.21 per share since the close of the 1951 fiscal year, when per share book value stood at \$13.25.

"Your management feels that excellent progress has been made during the current fiscal year in improving the company's overall operations. The extensive plant and equipment expansion program, principally for increased jet engine production, has now largely been completed. This fact is reflected in the larger volume and improved operational results.

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*[The main body of the page contains several paragraphs of extremely faint, illegible text. The text is too light to transcribe accurately but appears to be organized into distinct sections.]*

"During the past nine months, three quarterly dividend payments of 10 cents per share each have been declared, totaling \$131,758. Included is a 10 cent cash dividend which will be paid September 12 to stockholders of record August 22.

"As forecast in the last interim report to stockholders, the \$12 million bank credit has been increased in order to handle the growing volume of business. We now have a commitment for \$13.5 million, of which \$12.5 million is being used as of this date.

"The major projects of the Airplane Division and Metal Products Division have continued to show increases in volume over last year, and a projection for the period ahead indicates further growth in 1953. These programs include the manufacture of large airframe components and production of high-temperature parts for jet, piston and rocket engines. The backlog of unfilled orders remains at \$70 million, new business being booked at approximately the same rate as current deliveries.

"In the field of prime contracts for airplanes, and for research and development work, activity is increasing steadily. The Ryan XQ-2 jet propelled pilotless target plane program is attracting much interest, and other classified projects are gaining recognition from the military services. Security regulations, however, permit only a brief mention of this increasingly important phase of the company's work."

# # #

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NEWS BUREAU

BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN**Ryan Aeronautical Company**For A.M. Release  
Mon. 29 Sept. 1952

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

## FIRST ARTIST'S CONCEPTION OF RYAN

## Q-2 JET TARGET DRONE RELEASED

Sharply swept wings and tail surfaces appear to be the outstanding design features of the Ryan Q-2 pilotless target plane on the basis of an artist's conception of the high-speed jet-propelled drone.

The silhouette drawings, released today with Department of Defense approval in the 30th Anniversary Issue of Ryan Aeronautical Company's magazine, are obviously intended to reveal a minimum of design, dimensional and performance information.

"High above the desert sands of New Mexico," says the Ryan Reporter article, in the only reference to Q-2's current flight program, "a small pilotless jet airplane streaks across the sky at near sonic speed, guided only by the hand of a grounded 'pilot' at a remote control panel.

"It is Ryan's new target drone, designed for anti-aircraft and aerial gunnery training and for use in combat plane interception problems by Army, Navy and Air Force units.

"Little has been written or can now be revealed of its design details beyond the bare description that it is less than half the size of modern American jet fighters, but with comparable performance."

The original development contract was awarded the Ryan Aeronautical Company as a result of a design competition with 14 other aircraft manufacturers. The Q-2 is a joint project of the Air Force, Army and Navy with the Air Force having technical responsibility for its development.



Special Agent in Charge



Washington, D. C. 20535

[The body of the document contains several paragraphs of extremely faint, illegible text, likely a memorandum or report.]

This is Ryan's second announced project in the field of pilotless aircraft. Its experimental, rocket-powered Ryan XAAM-A-1 "Firebird" was the first air-to-air guided missile to be disclosed by the Air Force. Work is continuing under Air Force contract on some phases of the "Firebird" development program.

No information has been released on the quantity of Q-2s manufactured or in operation, or the present status of the program, though Ryan announced in its first reference to the target plane that the contract was for a "service test" quantity. A year later the company disclosed a further contract to "continue the development and fabrication of an additional quantity of the jet-powered aerial targets."

# # #

8-30-52W

The first part of the report is devoted to a general survey of the situation in the country. It is followed by a detailed account of the work done during the year. The report concludes with a summary of the results and a list of the names of the members of the committee.

The committee has the honor to acknowledge the assistance rendered by the various departments of the Government and the private institutions. It is also indebted to the members of the committee for their valuable suggestions and criticisms.

The report is published in the hope that it will be found interesting and useful to the public. It is also intended to serve as a basis for the work of the committee in the future.

Very respectfully,  
 The Chairman of the Committee

1888





**NEWS BUREAU**

**BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN**

Mailing Out: 10-9-52  
San Diego Red - Tab  
Aviation Mags (1) - All  
Aviation Mags (2) - Tab  
Aviation Mags (3) - Tab

Technical Red - All      Army/Navy-Tab  
Fin. Mags - All  
Fin. Dailies - Tab  
Wire Services - All  
Newspapers Red-Tab

# *Ryan Aeronautical Company*

**LINDBERGH FIELD • SAN DIEGO 12, CALIF.**

## RYAN AERONAUTICAL COMPANY AWARDED AIR

### FORCE CONTRACT FOR TITANIUM RESEARCH

Ryan Aeronautical Company's venture across a new frontier in aircraft metallurgy -- the use of the temperamental metal titanium --- has resulted in a contract for research and development awarded by the Air Force, T. Claude Ryan, president, announced today.

The work for the Air Force is to determine the best methods of processing titanium for use in conjunction with exhaust systems, a field in which Ryan has long specialized.

Announcement of the contract award came only a few days after Brig. Gen. Kern Metzger, director of the Aircraft Production Resources Agency, told 150 members of the San Diego chapter, Institute of Aeronautical Sciences:

"In the battle to keep down weight, titanium is our newest ally. The Navy also looks to titanium as the answer to many problems with salt water spray and salt air corrosion for both aircraft and sea-going vessels.

"By utilizing titanium, it is possible to design and produce aircraft to operate at speeds which involve temperatures in excess of those permissible by today's conventional materials."

The Air Force, Metzger said, has drafted a program to stimulate production by private industry, and has set aside \$5,000,000 to explore the vital material.

Because of its peculiar characteristics, titanium requires special handling, in the forming, cleaning and welding processes. But the military services are interested in its use because of its great strength-weight ratio and the possibility that it might be able to replace stainless steel in certain applications at great reductions in weight.



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IN THE MATTER OF THE ESTATE OF [Name]

Main body of the document containing several paragraphs of text, likely detailing the terms of a will or estate settlement. The text is very faint and difficult to read.

Ryan began research on titanium at its own expense in August, 1951, and was one of the first companies in America to form this metal successfully by the drop-hammer process. Sections of complex shape were fabricated for exhaust system shrouds for Piasecki HUP-1 helicopters. One of these exhaust system sections has undergone tests of several hundred hours and the titanium is being analyzed to determine the effect of high temperatures.

Known as the "Dr. Jekyll and Mr. Hyde" metal, titanium is a paradox of nature, exhibiting strangely contradictory characteristics.

It has an extremely high melting point for its weight--higher than steel--but it will not withstand continued use at temperatures above 1,000 degrees F. Titanium falls between the aluminum and steel alloys in both strength and resistance to temperature. It therefore has qualities of great interest to aircraft engineers, who have been forced to use the heavier stainless steel in designing structures which required more strength than aluminum alloys could provide at high temperatures.

While aluminum alloys lose strength rapidly when temperatures exceed 300 degrees F., titanium can retain its unusual strength up to temperatures of approximately 800 degrees F. Yet it weighs only 56 percent as much as steel, and compares favorably with steel in tensile strength (as high as 200,000 pounds per square inch).

Titanium has a lower linear coefficient of expansion and thermal conductivity than either aluminum or steel alloys. It also is the only metal known to have an endurance strength consistently in excess of 50 percent of its tensile strength.

Titanium is not a new discovery, but its use in the aircraft industry is new. Its presence has been known since 1791, but it was not produced commercially until 1946, when the U. S. Bureau of Mines developed a process for separating it from its ore. Although titanium is plentiful in the earth's crust, production costs are tremendous due to its affinity for the ore. The refined metal costs \$10 to \$20 a pound, compared with the two cents a pound market price for the ore. In 1950 only 60 tons of the metal were refined.

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one of the first companies in America to form this metal successfully by the drop- Ryan began research on titanium at its own expense in August, 1951, and was

One of the research avenues explored by Ryan is the experimental use of ceramic coatings on titanium to determine whether these may provide protection against oxidation and absorption. Ryan was an industry pioneer in demonstrating the success of such coatings when used with stainless steel alloys in the hottest spots of aircraft engines.

# # #

9-26-52K

One of the reasons given for the use of ceramic coatings on titanium to determine whether they are providing protection against oxidation and absorption. It was also found that the success of such coatings was not with titanium, but with the metal spots of aircraft engines.

\* # \*

9-26-52

Mailed with "Facts About Ceramic Coating"

booklet to:

Aviation Mags (1) - All

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Technical Red - All

Fin. Mags - Tab



Fin. Daily Press -(Tab)

Wire Services - Tab

## RYAN AERONAUTICAL COMPANY

LINDBERGH FIELD, SAN DIEGO 12, CALIFORNIA, U.S.A.

CABLE: RYANCO, SAN DIEGO

To Aviation, Financial and Technical Editors:

One of the major limitations in this "high temperature age" on the performance of aircraft and missiles is the ability of metals to withstand the searing heat generated by jet, piston and rocket engines.

A promising solution to many of the problems is the use of ceramics to coat metal parts. Two advantages are obvious: (1) the service life of the components when ceramic coated is greatly extended, and (2) less critical metals which are ceramic coated can often replace the strategic metals which are in short supply.

Because of the widespread interest in this new field, Ryan Aeronautical Company and California Metal Enameling Company, largest producers of ceramics for aircraft, have prepared the attached bulletin summarizing developments in ceramic coating. We believe editors will find it of interest.

Public Relations Department  
RYAN AERONAUTICAL COMPANY

WW:ah  
Attach.



# MEMORANDUM FOR THE RECORD

DATE: [Faint Date]

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Respectfully,  
[Faint Name]





Mailing O t: 10-25-52  
Aviation Mags 1 (Tab)  
Financial Mags (All)  
Financial Dailies (All)  
Wire Services (Tab)  
Local Press

For Release  
Monday, October 27

NEWS BUREAU

BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN

*Ryan Aeronautical Company*

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

EXTRA DIVIDEND DECLARED

BY RYAN AERONAUTICAL COMPANY

A regular quarterly dividend of 10 cents per share plus an extra dividend of 10 cents per share on common capital stock was declared yesterday (Friday) by the board of directors of the Ryan Aeronautical Company. The 20-cent cash dividend is payable December 12 to stockholders of record November 21, 1952.

This will be Ryan's ninth consecutive quarterly dividend, and the 24th dividend payment since incorporation.

10-25-52

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SAN DIEGO RED - TAB  
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TECHNICAL RED - (TAB)  
FINANCIAL MAGS - (TAB)  
FINANCIAL DAILY (TAB)

## NEWS BUREAU

BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN

# Ryan Aeronautical Company

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

PIX SENT TO FOLLOWING:

## TWO ENGINEERS APPOINTED TO KEY POSTS AT RYAN AERO

AVIATION WEEK (BOB WOOD)  
AMER. AVIA. (WAYNE PARRISH)  
AERO. ENG. REVIEW (SHRADER)  
WESTERN AVIATION (RHODES)  
SOUTHERN FLIGHT (HADDAWAY)  
AERO DIGEST (FRED HAMLIN)

TWO TOP CIVILIAN EXPERTS FROM THE NAVY BUREAU OF AERONAUTICS AND THE U. S. AIR FORCE HAVE JOINED THE RYAN AERONAUTICAL COMPANY ENGINEERING DEPARTMENT IN KEY POSTS.

THEY ARE G. C. "GABE" DANCH, FOR SEVEN YEARS WITH THE FIGHTER BRANCH, BUREAU OF AERONAUTICS, AND AL DEYARMOND, FORMER CHIEF OF THE SPECIAL STUDIES OFFICE, AIR TECHNICAL INTELLIGENCE CENTER, WRIGHT-PATTERSON AIR FORCE BASE, DAYTON, OHIO.

FOR ONE YEAR AS AN OFFICER AND THE LAST SIX YEARS AS A CIVILIAN, DANCH WAS ASSOCIATED WITH THE DEVELOPMENT OF THE NAVY'S MOST ADVANCED FIGHTER PLANES. BY COINCIDENCE, ONE OF THE FIRST PLANES ON WHICH HE WORKED WAS RYAN'S FAMED "FIREBALL", THE FIRST COMBINATION JET AND RECIPROCATING ENGINE PLANE IN THE WORLD. DANCH WILL SERVE AS EXECUTIVE ASSISTANT TO BRUCE SMITH, RYAN DIRECTOR OF ENGINEERING, AND WILL PERFORM SPECIAL ASSIGNMENTS.

DEYARMOND ACTUALLY IS RETURNING TO RYAN, WHERE HE WAS CHIEF OF STRUCTURES FROM DECEMBER, 1946 TO APRIL, 1948, WHEN HE WENT TO THE AIR MATERIEL COMMAND'S INTELLIGENCE SECTION ON A CIVIL SERVICE APPOINTMENT. HIS DUTIES HAVE ENCOMPASSED THE STUDY OF PERFORMANCE CHARACTERISTICS OF FOREIGN AERONAUTICAL EQUIPMENT. DEYARMOND WILL AGAIN FILL THE REACTIVATED POST OF CHIEF OF STRUCTURES AT RYAN AND IN ADDITION WILL ALSO BE CHIEF OF AERODYNAMICS.

# # #





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SAN DIEGO RED - TAB  
AVIATION MAGS (1) - ALL  
AVIATION MAGS (2) - ALL  
AVIATION MGS (3) - TAB

For release: Wednesday, 26 November  
TECHNICAL RED - TAB  
FIN. MAGS - ALL WIRE SERVICES - TAB  
FIN. DAILY - ALL NEWSPAPERS RED - TAB

## NEWS BUREAU

BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN

# Ryan Aeronautical Company

LINDBERGH FIELD • SAN DIEGO 12, CALIF.

RYAN BOOKS \$6 MILLION IN NEW ORDERS

AS DELIVERY RATE DOUBLES YEAR AGO

Current deliveries of Ryan Aeronautical Company's aircraft and aeronautical products are double the rate of a year ago and at the highest level since peak production rates of World War II, T. Claude Ryan, president, revealed today.

At the same time Ryan announced the closing of \$6,000,000 in new orders for jet engine components, exhaust systems and airframe parts during the past thirty days.

Contracts from General Electric for parts for the J-47 jet engine totaled in excess of \$2,000,000 for the period, while Douglas Aircraft Company and the Ford Motor Company placed new orders of more than \$1,000,000 each, with smaller but substantial new business also coming from Continental Motors Corp., Fairchild Aircraft Company, Boeing Airplane Company and other long-time Ryan customers.

While monthly delivery figures were not released, Ryan stated that gross business for the last quarter of the 1952 fiscal year, ended October 31 last, was well in excess of \$10,000,000.

Employment which was 3400 at the start of the 1952 fiscal year increased 15 percent to 3900 on October 31 and is planned to reach 4200 early in 1953.

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 WIRE SERVICES 7  
 NEWSPAPERS 7

**NEWS BUREAU**  
**BILL WAGNER**  
**BILL BROTHERTON**  
**HAROLD KEEN**

# *Ryan Aeronautical Company*

**LINDBERGH FIELD • SAN DIEGO 12, CALIF.**

**RYAN AERO AWARDED SECOND  
 TITANIUM RESEARCH CONTRACT**

A second important contract in research and development of titanium for application to aircraft production has been awarded Ryan Aeronautical Company.

Recognizing Ryan's pioneering experience in this field, the Navy Bureau of Aeronautics has ordered the manufacture and testing of a large number of specimens typical of airframe construction.

Award of this contract follows closely an earlier Air Force order aimed at determining the best methods of processing titanium for use in conjunction with exhaust systems, one of Ryan's longtime specialties.

The Bureau of Aeronautics contract will provide information much needed by the aircraft industry regarding optimum application to aircraft structures of titanium and titanium alloys as compared with aluminum alloys and stainless steel.

Titanium is a temperamental "mystery" metal with many advantageous qualities as far as strength, weight-saving and heat-resistance factors are concerned. But it requires special handling, due to its peculiar characteristics, and the aircraft industry, with Ryan as one of the leaders, is experimenting to decide how it might, for instance, be able to replace stainless steel in some applications.

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Ryan was one of the first companies in America to form titanium successfully by the drophammer process. Research at its own expense was started in August, 1951.

Extremely expensive because of high costs of refining from the ore, titanium now costs as high as \$25 a pound. The first shipment of titanium sheets for the Air Force and Navy contracts is due at the Ryan plant in about two months. The work, on a long-term basis, will be performed under supervision of the engineering department in the development laboratories.

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 AVIATION MAGS (1) - ALL FIN. MAGS - ALL  
 AVIATION MAGS (2) - ALL FIN. WRITERS - ALL FOR RELEASE  
 AVIATION MAGS (3) - TAB WIRE SERVICES - ALL FRIDAY, DECEMBER 12  
 NEWSPAPERS - RED - ALL

**NEWS BUREAU**  
**BILL WAGNER**  
**BILL BROTHERTON**  
**HAROLD KEEN**

# *Ryan Aeronautical Company*

**LINDBERGH FIELD • SAN DIEGO 12, CALIF.**

RYAN PROFIT OF \$878,359 MORE  
 THAN DOUBLES 1951 EARNINGS

NET PROFIT OF THE RYAN AERONAUTICAL CO. FOR THE 12 MONTHS ENDED OCTOBER 31, LAST, WAS \$878,359, MORE THAN DOUBLE THAT FOR 1951, T. CLAUDE RYAN, PRESIDENT, REPORTED YESTERDAY IN A PRELIMINARY UNAUDITED STATEMENT TO STOCKHOLDERS.

THE IMPROVED EARNINGS AS CONTRASTED WITH 1951'S NET PROFIT OF \$402,604, AND THE SHARP INCREASE IN BUSINESS VOLUME, WERE THE SIGNIFICANT DEVELOPMENTS OF THE FOURTH QUARTER OF THE COMPANY'S 1952 FISCAL YEAR, RYAN SAID.

THE 1952 EARNINGS WERE EQUAL TO \$2.23 PER NET OUTSTANDING SHARE, AGAINST \$1.02 FOR THE 12 MONTHS ENDED OCTOBER 31, 1951.

NET SALES FOR THE FISCAL YEAR JUST CLOSED WERE \$35,068,250, AN INCREASE OF 57 PER CENT OVER THE \$22,277,175 FOR 1951.

IN HIS REPORT TO SHAREOWNERS RYAN DIRECTED SPECIAL ATTENTION TO THE FACT THAT WHILE FEDERAL TAXES TOOK 52 PERCENT OF THE 1951 NET INCOME DOLLAR, THIS YEAR 70 PERCENT OF NET INCOME WENT FOR FEDERAL TAXES.

NET BOOK VALUE OF THE COMPANY WAS AT AN ALL-TIME HIGH OF \$5,898,510 ON OCTOBER 31, LAST. THIS WAS EQUAL TO \$14.98 PER SHARE, AN INCREASE OF \$1.73 DURING THE PAST TWELVE MONTHS.

WORKING CAPITAL ALSO SHOWED A MARKED INCREASE, STANDING AT \$4,238,524, UP \$913,916 COMPARED WITH \$3,324,608 A YEAR PREVIOUSLY.

THE COMPLETE ANNUAL REPORT TO STOCKHOLDERS OF THE RYAN AERONAUTICAL CO. WITH AUDITED FINANCIAL STATEMENTS IS NOW IN PREPARATION.

# # #

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TECH. RED - ALL  
FIN. MAGS - ALL  
FIN. DAILY - ALL  
WIRE SERVICES - ALL  
NEWS. RED - TAB

**NEWS BUREAU**

**BILL WAGNER  
BILL BROTHERTON  
HAROLD KEEN**

# *Ryan Aeronautical Company*

**LINDBERGH FIELD • SAN DIEGO 12, CALIF.**

## YEAR END ROUND-UP

### RYAN AERONAUTICAL COMPANY

THE YEAR 1952 WAS THE BRIGHTEST, FROM A FINANCIAL STANDPOINT, IN THE HISTORY OF RYAN AERONAUTICAL COMPANY, WHOSE PRESIDENT, T. CLAUDE RYAN, ONE OF SAN DIEGO'S AVIATION PIONEERS, CELEBRATED HIS 30TH ANNIVERSARY IN THE INDUSTRY.

NET INCOME FOR THE 1952 FISCAL YEAR, A PRELIMINARY FINANCIAL STATEMENT SHOWED, WAS AT AN ALL-TIME HIGH OF \$878,359, MORE THAN TWICE THE PRECEDING YEAR. SALES VOLUME, OVER \$35,000,000, WAS UP 50 PERCENT OVER THE PREVIOUS YEAR, AND NET WORTH OF THE COMPANY AT THE CLOSE OF 1952 IS AT A RECORD PEAK. THE CURRENT BACKLOG OF APPROXIMATELY \$70,000,000 IS THE HIGHEST SINCE THE PEAK OF WORLD WAR II PRODUCTION.

THE YEAR 1952 MIGHT WELL BE DESCRIBED AS THE "HARVEST YEAR" OF THE EXTENSIVE TOOLING PREPARATION IN 1951. WITH THE "MAKE-READY" PERIOD PASSED AND IMPROVEMENTS IN GENERAL EFFICIENCY REFLECTED IN RAPIDLY ACCELERATING PRODUCTION, 1953 IS FORECAST TO SURPASS EVEN THE OUTSTANDING 1952 RECORD.

TAKING ON INCREASED IMPORTANCE IS RYAN'S RESEARCH AND DEVELOPMENT IN BOTH PILOTED AND PILOTLESS JET PLANES OF VERY ADVANCED TYPES.

NOTED IN THE INDUSTRY AS THE COMPANY THAT MADE THE "FIREBALL," FIRST NAVY JET FIGHTER AND THE WORLD'S FIRST JET-PLUS-PROPELLER AIRPLANE, RYAN HAS DESIGNED NEW TYPES OF AIRCRAFT IN WHICH THE AIR FORCE, NAVY AND ARMY HAVE SHOWN GREAT INTEREST. ONLY ONE OF THESE PROJECTS CAN BE IDENTIFIED -- THE Q-2, A JET-PROPELLED, PILOTLESS DRONE PLANE NOW FLYING AT THE HOLLOMAN AIR DEVELOPMENT CENTER, ALAMOGORDO, N.M.

General Statement, 1905

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INCREASED FUNDS DURING THE PAST YEAR WERE ALLOTTED RYAN BY THE AIR FORCE AND THE NAVY FOR ITS ELECTRONIC RESEARCH AND DEVELOPMENT PROJECTS, ALSO OF CONFIDENTIAL NATURE, AND FOR PIONEERING WORK WITH TITANIUM, A TEMPERAMENTAL METAL NEW TO THE AIRCRAFT INDUSTRY. IN THE FIELD OF METALLURGY, RYAN FURTHER ADVANCED ITS LEADERSHIP IN THE APPLICATION OF CERAMICS TO STAINLESS STEEL USED IN THE HOTTEST PORTIONS OF EXHAUST SYSTEMS AND JET ENGINE COMPONENTS, A RYAN SPECIALTY FOR MANY YEARS.

THE GREATEST INCREASE IN BUSINESS DURING 1952, VOLUME-WISE, WAS IN JET ENGINE COMPONENTS FOR GENERAL ELECTRIC AND IN HUGE FUSELAGE SECTIONS FOR THE BOEING C-97 TRANSPORT PLANES. EXPANSION OF PRODUCTION OF EXTERNAL FUEL TANKS -- THE LARGEST OF THEIR KIND EVER MADE -- ALSO OCCURRED DURING THE LAST YEAR. AFTER SUCCESSFUL PILOT LINE MANUFACTURE OF ROCKET ENGINES IN 1951, RYAN LAUNCHED QUANTITY PRODUCTION IN 1952.

A TREMENDOUS ARRAY OF GIANT NEW MACHINE TOOLS STREAMED INTO THE PLANT DURING 1952, AND IN ONE PARTICULAR PHASE OF PRODUCTION TECHNIQUES, ELECTRIC RESISTANCE WELDING ON BOTH ALUMINUM AND STAINLESS STEEL, RYAN IS BELIEVED TO HAVE THE MOST ELABORATE EQUIPMENT IN THE WORLD.

AN AMAZING VARIETY OF COMPONENT PARTS AND AERONAUTICAL EQUIPMENT WILL CONTINUE TO BE PRODUCED BY RYAN DURING 1953 FOR SUCH MAJOR CUSTOMERS AS BOEING, GENERAL ELECTRIC, DOUGLAS, PRATT & WHITNEY, FORD, CONTINENTAL MOTORS, CONVAIR, WESTINGHOUSE, FAIRCHILD, FIRESTONE, PIASECKI AND A HOST OF OTHER AIRFRAME AND ENGINE MANUFACTURERS. AT THE SAME TIME RYAN WILL BE NEGOTIATING FOR ADDITIONAL PRODUCTION OF PILOTED AND PILOTLESS PLANES OF ITS OWN DESIGN.

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